

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-010-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Materiel / Flight Controls / Asymmetric flight spoiler extension

Occurrence Date Time: 26 0815 LOCAL Apr 17

Location: Brisbane

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: Nil

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point: YSCB

Intended Land Point: YBBN

Mission: Other - Please Specify
VIP CAT B

s47E				

Personnel Details

AC / A / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

The aircraft had just left FL400 on descent into YBBN on a VIP mission. Due to proximity of overspeed cue and slight turbulence, the PF (aircraft captain) deployed flight spoiler to control airspeed. As spoiler was deployed, a significant roll to the right occurred (approx 20 degrees angle of bank achieved before autopilot counteracted with opposite aileron). The flight spoiler lever was instinctively retracted by the PF. After discussion and in order to confirm controllability and cause of the issue, the flight spoiler was once again deployed slightly. Crew noted the left flight spoiler panel did not extend, whilst the right panel extended, again with some roll tendency. Flight spoilers were retracted and the abnormal checklist Flight Spoiler Asymmetric Extension was consulted (directing that flight spoiler not be used again in flight). Aircraft landed via ILS approach to RW01 without further incident.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Crew Actions

The crew were on descent into Brisbane when the Pilot Flying (PF - Aircraft Captain flying from the left hand seat) used the flight spoilers to control the aircraft's airspeed. They felt some restriction in using the flight spoiler lever (sometimes a common occurrence), and pulled more gently on the lever to approximately 1/4 deflection. The aircraft simultaneously conducted a marked roll to the right by approximately 20 degrees angle of bank. The autopilot was unable to counter this, and the PF instinctually retracted the flight spoilers when the roll commenced. The PF thought it could have been an asymmetric spoiler condition, but was unsure.

After approximately 30 seconds and with caution, the PF slowly deployed the flight spoilers to the first detent to verify whether or not it was an asymmetric spoiler condition. This was conducted slowly enough that the autopilot was able to counter the aircraft roll, and the crew was able to confirm a flight spoiler asymmetry (right extended, left retracted) on the ED 2 display.

The PF changed the aircraft's vertical automation to vertical speed (VS) mode in order to have greater control of the aircraft's airspeed. The crew discussed the situation, and completed abnormal checklist procedures from the Bombardier Challenger 604 Quick Reference Handbook - RAAF (Publication No. PSP 604-15-RAAF), which states the flight spoilers not to be reselected in flight.

When it came to whether or not an emergency was to be declared, the crew went through the following considerations:

- Aircraft **S47E** and would have been given priority to land, and the potential use of spoilers would have been minimal;
- The spoilers were not required for flight, and speed control could be easily managed;
- Runway length at Brisbane was long enough for the additional factoring without the use of flight spoilers;
- The flight spoilers had fully retracted, and were not stuck in an extended position.

The Crew Attendants were notified of the issue, but were not given a full NITS brief due to the nature of the issue. They did notice the first aircraft roll, but thought it was turbulence. The passengers were unaware of the roll, and were not informed due to the nature of the issue. The crew continued to land without further incident.

002 34Sqn

Maintenance Comments

Entered on behalf of **S47G**

ASOR: 34SQN 010-2016 - 'CL604 Flight Spoiler Asymmetric Extension'

S47G LAMEs were dispatched to Brisbane to investigate the report and carry out rectification actions as required.

- A detailed inspection was carried out on the Flight Spoiler cable run from the MLG Wheel-Well through to the Wing Flight Spoilers (common cable run to the MLG WW) and a functional check carried out. Nil faults were detected.
- A Rig Check was then performed from the MLG WW to the Flight spoilers. The system was found to be very slightly out of Rig at 40o extension. L/H = 39o and R/H = 41o (tolerance of 40o +1o & -0o)
- The L/H Flight Spoiler was adjusted IAW with AMM 27-61-00 and operationally tested.
- The aircraft was RTS and has completed a number of sectors and task since this event.

Note: Maintenance experience has shown that very slow movement of the flight spoiler sometimes results in an initial asymmetric movement.

Hazard Reports - Full Listing

Findings

001 Crew actions

The crew were on descent into Brisbane when they had an asymmetric spoiler issue. The crew conducted checklist actions, and went through all considerations. An emergency was not declared with ATC, and the passengers were not informed due to the nature of the issue. The crew landed in Brisbane without further incident.

002 Maintenance comments

Ar^{s47G} LAME was dispatched to Brisbane and conducted a check on the system. The Rig was very slightly out of tolerance, and the Rig was adjusted to within limits. There had been no other issues since this incident, with a note that slow movement of the flight spoilers sometimes results in an initial asymmetric movement.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Unreliable/Faulty / 1

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Procedures / Emergency/Abnormal Checklist

Risk Management

RM Stragtagies: Flight conducted under MRP 341.

RM Effective: Yes

RM Narrative: MRP 341 details Aircraft system failure leading to: Aircraft Damage, Mission - Delay, or Mission - Cabin Service. Existing controls of Aircrew emergency training and currency were effective.

Actions

001 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 23-May-2017

Assigned Date: 23-May-2017

Due By Date: 23-May-2017

Title: Information dissemination

Action Details: Once completed, ASOR to be disseminated to all aircrew to communicate any lessons learnt.

Response: Unit Action added to 34SQN SharePoint task 395. Expected completion is Thursday 25 May 17.

Recommendations

Nil

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

The crew immediate reaction to return the aircraft to the configuration prior to the uncommanded roll is understandable. The uncertainty as to why the aircraft rolled and the subsequent controllability check of the flight spoilers allowing the crew to identify the problem at a safe altitude and in a controlled environment showed considered airmanship. The actions of the crew are supported. This ASOR will be briefed at the SQN monthly brief.

CO Comments

This incident was well handled by the aircrew. A repeat of the event at lower altitude could have resulted in more dire consequences, therefore I support their decision to confirm the spoilers were the cause of the issue.

Hazard Reports - Full Listing

Board Review

Board Review Comments

Closed OOS by OC84WG 09Jun17

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-016-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Human / Incorrect checklist Action / Standby attitude indicator (AI) not uncaged

Occurrence Date Time: 07 1300 LOCAL Jun 17

Location: Canberra

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: No ATSB: No

Weather: Wind 170 at 15-25KT, cloud SCT040

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: Canberra YSCB

Intended Land Point: Cairns YBCS

Mission: Other - Please Specify
VIP transport

s47E				

Personnel Details

CP / C / Trade Cat: Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

AC / C / Trade Cat: Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

During the conduct of the pre-flight system checks, the co-pilot did not uncage and align the aircraft standby attitude indicator (SBY AI) IAW operating procedures. The aircraft departed Canberra with the standby AI in a caged condition. This condition was noticed by the aircraft captain after passing 10,000 FT AMSL on climb. The SBY AI was uncaged in a steady un-accelerated climb, and aligned once the aircraft was established in level flight. The sortie proceeded without further incident.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Sequence of events

The crew was tasked to fly a VIP task out of Canberra on the day of the incident. The co-pilot CP came out to the aircraft approximately 70-90mins prior to doors close to prepare the aircraft for departure. The CP conducted the 'Serviceability Checks' as detailed in the CL-604 PILOT'S HANDLING NOTES (AAP 7211.037-15 SECTION 1, CHAP. 2, PARA. 2-3 (CL604 PHN)). This includes completing the 'External safety inspection', 'Normal Power-up Check', 'System Check' and 'Before Start Check'. The CP completed the 'Serviceability Checks', and was in the final stages of completing the 'Flight Deck Set-up' duties as detailed in CL604 PHN when the Aircraft Captain (AC) arrived at the aircraft approximately 45 minutes prior to doors close.

The AC conducted their 'External walk-around' and noticed a maintenance issue which required attention of s47G engineers. The AC returned to the flight deck and conducted their 'Flight Deck Set-up duties' while still dealing with the maintenance issue. During this time, and approximately 20mins prior to doors close, they were notified that the passengers had arrived early. The maintenance issue was rectified, and the crew conducted their briefings as per SOP, and doors closed on time. During this whole time, neither crewmember noticed that the SBY AI was still caged.

The aircraft departed Canberra as per SOP, but it was during the climb out that the AC realised there was an issue with the SBY AI. Thinking it was a failure, the AC cross checked both the left and right PFD, and were satisfied that the aircraft was in a safe regime as they were climbing away in VMC conditions. Through 10,000ft, the crew looked at the SBY AI, and came to the realisation that it was still caged. It was at this time the AC asked the CP if the 'System Checks' had been completed, which the CP said they did complete.

The crew had a discussion on how to proceed, and as they were established in steady climb (approximately 10degrees nose up, un-accelerated flight) they decided to un-cage the SBY AI. They crosschecked the SBY AI once again in the cruise, and were satisfied it was operating normally. The flight continued onto its destination without further incident.

002 34Sqn

Crew actions

The CP was responsible for un-caging the SBY AI, and ensuring it was erected/normal as per the OEM 'System Check' (BOMBARDIER CHALLENGER 604 OPERATING MANUAL VOLUME 1 CHAP 4-4 SECTION 1E), which is a duty conducted as part of the 'Serviceability Checks' detailed in CL604 PHN. The 'System Check' is initially conducted as a flow, followed by the electronic checklist being conducted as confirmation checklist actions have been completed. The CP in this incident in conducting their flows did not un-cage the SBY AI, and missed this checklist step while conducting the electronic checklist. They were not aware of this error until the AC noticed it after departure out of Canberra.

The AC has duties detailed in 'Flight Deck Set-up' section of CL604 PHN. This includes conducting a scan of panels and flight instruments, which are a confirmation that the CP has setup the flight deck appropriately for flight. During this incident, the AC did not conduct this as they were rushed and had their pre-flight flow disrupted due to the maintenance issue.

Hazard Reports - Full Listing

003 34Sqn

Human factors

The CP had a flown the previous day, and had a minimum crew rest period prior to reporting to duty for the incident flight. The CP was behind in their normal timelines in going out to the aircraft, and conducting the appropriate duties. In conducting the flows for the 'System Check', the CP was rushed in order to complete the flight deck setup prior to the AC's arrival. This resulted in the CP missing both the initial flow of un-caging the SBY AI, as well as missing the confirmation checklist step when conducting the electronic checklist.

The CP had also been categorised on type for over a year, and was very comfortable in operating the CL604 as a CP. They had conducted their duties in setting the flight deck up numerous times, which included un-caging the AI. This resulted in the CP being complacent in the way they conducted their flows, and subsequent checklist actions. The combination of the CP being rushed, and comfortable (complacent) in their duties as a CP contributed to the SBY AI not being un-caged.

The AC came to the aircraft 45minutes before doors closed. The CL604 PHN states that the AC should be at the aircraft 40 minutes prior to doors close as a minimum for VIP tasks. During the external walk around, the AC noticed an issue, which required rectification from S47G engineers. This would take time to complete, and this compromised their normal flow and habit pattern. The AC continued with their preparation duties whilst still liaising with maintenance engineers for the issue with the aircraft. The AC was also notified that the passengers had arrived 20minutes, and although there was no expectation that the passengers expected to depart any earlier, the AC had perceived pressure to depart as soon as possible. In doing so, the AC's normal flow was broken, and the AC did not scan the panels and flight instruments as detailed in CL604 PHN. This resulted in the AC not identifying that the SBY AI was not un-caged.

Findings

001 *Sequence of events*

The crew was flying a VIP task from Canberra when the aircraft departed Canberra with the SBY AI still caged. This was not identified until the aircraft was in the climb. The SBY AI was un-caged and the task was continued without further incident.

002 *Crew actions*

As part of their duties, the CP was responsible for un-caging the SBY AI during their 'System Check'. This was not completed, and the AC did not identify this as they did not conduct their panel and flight instrument check as per the CL604 PHN.

003 *Human factors*

The CP was rushed and complacent when preparing the aircraft for flight. This contributed to the SBY AI not being un-caged, and the subsequent checklist action being missed. The AC was dealing with a maintenance issue, and was also notified that passengers had turned up earlier than expected. This resulted in the AC being rushed, and their normal flow (habit pattern) being broken. They did not identify that the SBY AI was not un-caged as the panel and flight instrument scan was not conducted.

Contributing Factors

Unsafe Acts or Conditions / Errors / Skill-Based Errors / Omitted Procedural/Checklist Step / 1

Preconditions for Unsafe Acts / Substandard Conditions / Adverse Mental States / Distraction / 3

Preconditions for Unsafe Acts / Substandard Conditions / Adverse Mental States / Confidence / 3

Preconditions for Unsafe Acts / Substandard Conditions / Adverse Mental States / Other / 2

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Philosophy / Crew Resource Management

Hazard Reports - Full Listing

Risk Management

RM Stragtagies: The flight was cpnducted under 84WG MRP341.

RM Effective: N/A

RM Narrative: This MRP details that crews operate as per SOP. In this incident, the crew did not conduct their procedures as per SOP, which resulted in the SBY AI remaining caged. However, the MRP does identify VIP pressures which could lead to an incident/accident caused by compressed time line. Due to the fact that it would be rare for those outcomes to have happened in this incident, all extant risk management procedures are still current for all operations.

Actions

001 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 13-Aug-2017

Assigned Date: 13-Aug-2017

Due By Date: 13-Aug-2017

Title: Perceived Pressure

Action Details: Squadron to be informed about this ASOR, and associated risks of perceived pressure.

Response: Squadron briefed during Squadron Capability Brief for July 2017.

Recommendations

Nil

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

Perceived versus actual time pressure is difficult to quantify when conducting VIP operations. Pressure to ensure on time departure and arrival is real for the delivery of a VIP service; however this must not be confused with effective delivery of service. This incident highlights that prioritising time over conducting normal procedures actually compromises the delivery of the capability. I support the unit actions for highlighting the issue of compromising checklist actions when time pressure builds, however this is a common theme when conducting VIP operations. 34SQN will continue to make this an open discussion, and have continued executive support when delaying tasks if there is compromise to safety due to time pressure. This particular incident flying without a standby AI could have led to a serious incident. The crew's subsequent actions to rectify the situation and continue the mission are supported given the ability to un-cage the STBY AI.

CO Comments

The pressure placed on VIP aircrew to ensure VIPs arrive on time is real. A delay of 10 mins can impact Air Force reputation and, whilst the 34SQN Executive make every effort to reinforce a safety first culture, I have found in many cases there is significant external pressure placed on VIP aircrew to make their departure and arrival times work. How best to empower aircrew to follow the mission first, safety always mantra is an ongoing discussion at executive level. More formally, the topic is part of an ongoing education process at 34SQN monthly aircrew briefings.

I believe all 34SQN aircrew know I will support their decisions to delay missions whenever there are safety concerns, or anytime they feel rushed. This is what professional aircrew must do, and I will continue to reinforce this message at regular open forums with 34SQN aircrew.

Board Review

Board Review Comments

23AUG17. TD. ASOR has been reviewed and closed by OC84WG. (J4771067)

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-017-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Materiel / Electrical System / Generator Failure

Occurrence Date Time: 08 1735 LOCAL Jun 17

Location: Other - Please Specify

YMHB

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Night

Meteorological Conds: IMC

Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point: YMML

Intended Land Point: YMHB

Mission: Operations

VIP Operation

s47E				

Personnel Details

AC / C-RHS / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 / s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 / s47E

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 / s47E

Hazard Reports - Full Listing

On descent passing 9000 ft AMSL, EICAS GEN 2 OFF message illuminated. A PAN was declared and the aircraft entered a holding pattern. The checklist was carried out however GEN 2 would not reset. After a short crew discussion, an RNAV approach was conducted. The aircraft landed without further incident.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Initial Event

On descent into Hobart, just after transition and passing 9000 ft, the crew had just started the APU IAW normal procedures when the GEN 2 OFF annunciation appeared with associated MASTER CAUTION. The aircraft was 10nm from the initial approach fix for the RNAV-Y RWY30. The GEN 2 OFF checklist was consulted and actions completed. A PAN was declared and a hold was requested at 6000 ft from ATC which was approved. The aircraft was night IMC at this stage.

002 34Sqn

GEN OFF checklist

The GEN 2 OFF checklist calls to reset the Generator. The crew completed this step with no result. The Generator was still indicating a failure state. At this stage there were some indications IAW the checklist that automatic load shedding had occurred and HYD pump 1B was not available (electric powered hydraulic pump). HYD pump 1A (Engine Driven Pump) was not affected and was operating normally. In the CL604, the offside generator powers the electric powered hydraulic pump.

003 34Sqn

Crew interaction

When the initial GEN OFF annunciation occurred, the CREWATT noticed that the lights in the cabin went out but she could not determine why. She instinctively turned on the reading lights for each passenger.

At this point the Captain made a PA using the EMERGENCY PA phraseology. This would normally alert the CREWATT to approach the flightdeck in preparation for a briefing from the Captain (NITS brief). The CREWATT in this instance did not hear the PA, nor realise that anything was wrong. She did hear an QUOTE unfamiliar chime UNQUOTE, and looked to the flightdeck to see what was going on.

The CL604 does not have a flightdeck door, so the Captain chose to gesture to the CREWATT from the flightdeck. She saw this and went to the flightdeck for a NITS brief. After the brief, the CREWATT then briefed the VIP passenger as to the incident at hand.

Anecdotal evidence based on CL604 crew reports suggest that the PA system has never been sufficiently loud enough to alert the CREWATT during flight.

004 34Sqn

Airport standby

In the hold, ATC asked the crew if they wanted airport Local standby or Full standby. The crew discussed the standby and the captain elected for local standby only.

005 34Sqn

Approach and landing

The crew conducted the RNAV approach to runway 30 and became visual below the cloud base at 5000 ft. The aircraft continued for an uneventful landing. ATC chose to park the aircraft on bay 21 away from the terminal and not bay 1 as planned.

The aircraft landed with 4000 pounds of fuel remaining.

Hazard Reports - Full Listing

006 34Sqn

Airborne Decision Making

The captain and co-pilot did not inherently discuss their options other than continuing for landing at Hobart until after landing in the debrief. Whilst the decision to land at Hobart was considered obvious based on the fuel state, weather and passenger requirements, it would have potentially been more prudent to conduct a decision making process to align both pilot's mental models and to include the CREWATT in that process. Further, there may have been other resources available (VIPOPS, SDO) to discuss the potential impact of the aircraft breaking after landing at the destination that may have altered the Captain's decision to land at Hobart.

007 34Sqn

Events after shutdown

After shutdown, the Captain spoke to the passenger's executive assistant. They advised that the aircraft should aim to depart on schedule (about 2 hours later) if possible. There was a SPA BBJ parked on a nearby apron but the crew had already gone into crew rest for the next day's task and were not available to fly that evening.

The SDO and DDAAFS were advised and a plan to get an engineer (who happened to be in location by chance on the BBJ) was put in place. The engineer showed up at the aircraft approximately 30 minutes later. On the way to the aircraft, the engineer asked the crew to complete an engine run to fault find the issue and see if the generator would work. This was completed but the generator would not function correctly. The aircraft was shutdown to await the engineer.

At this stage the VIP's EA rang the Captain and advised that there was no suitable accommodation in town and that the aircraft would need to depart on schedule. CO and OC 84WG were consulted and a plan was made for the VIP to sleep on the BBJ that was parked nearby if in fact there was no accommodation and the Challenger could not depart.

The captain received three further phone calls from the EA about departure time and at this stage the SDO directed the Captain to let SOVIPOPS liaise with the EA and passengers.

008 34Sqn

Engineer actions

The engineer arrived at the aircraft and after fault finding the issue advised the captain that the generator had hard failed and that the aircraft was unserviceable.

The captain elected to put the crew in crew rest for the next day. Accommodation was found in town that met aircrew standards and the crew arrived at the accommodation at 10pm (over 4 hours after landing).

009 34Sqn

AMCC Support

This task was one of the first tasks supported by AMCC since the move from MSC at Fairbairn occurred. Of note, the crew used the Master Tasking Board to reflect a requirement for 8000 pounds of fuel ex CBR, but 9500 lbs was loaded.

010 34Sqn

Aircraft history

The aircraft had recently come out of heavy maintenance, which was conducted at Canberra. The failed IDG was fitted during the recent 78K Mid Life Check and had accrued 3.9 Hours and 3 Cycles. The unit was received fresh from overhaul.

Since coming out of heavy maintenance, this aircraft has had four other materiel issues including a fuel leak, brake accumulator fail, flap fail and a panel falling off during flight.

Hazard Reports - Full Listing

011 34Sqn

Maintenance investigation

The **S47G** TE consulted the OEM fault finding guidance (SmartFix) and transposed the Generator Control Unit (GCU) between positions No 1 and 2. (Fault remained). Wiring checks carried out. (Fault remained). A serviceable IDG was removed from **S47E** (in maintenance - CBR) and fitted. Fault cleared. Aircraft was returned to service and returned to Canberra with no further issues.

Hazard Reports - Full Listing

Findings

001 GEN Fail

The aircraft generator number 2 failed on descent.

002 Pilot Actions

The GEN 2 OFF checklist was consulted, and the generator did not recover after a reset. The APU was running at this stage.

A PAN was declared to ATC.

003 PA

The captain made an EMERGENCY PA over the PA system to get the CREWATT to come to the flightdeck. The CREWATT did not hear the PA but heard the PA chime. She was not sure what the chime was as it sounded unfamiliar to her.

Anecdotal evidence suggests that the PA system has never been sufficiently loud enough to alert the CREWATT during flight.

004 CREWATT Actions

The CREWATT noticed the cabin lights go out on descent. She instinctively turned on reading lights for the passengers but did not realise that anything was wrong.

005 NITS Brief

The Captain gestured to the CREWATT from the flightdeck. She saw this and went to the flightdeck. The Captain briefed her using the NITS format and she then advised the primary passenger of the issue with the aircraft and intentions.

006 Hold

The aircraft conducted two holding patterns at 6000 feet in IMC and then flew the RNAV-Y runway 30 at Hobart for a landing. The aircraft became visual at 5000 ft.

007 Parking

The aircraft was parked on bay 21 away from the terminal. The crew declined full airport standby from ATC, and local standby only was activated by the airport.

008 After Shutdown

After shutdown, the captain advised the EA to the VIP that the aircraft was unserviceable. The EA stated that they should plan to depart on schedule if possible.

The captain advised the SDO who commenced recovery planning. A BBJ was in location but the BBJ crew had run out of crew duty and could not be used.

009 Pax Accommodation

The passengers advised that there was no suitable accommodation in town available. The Captain advised the SDO of this and a plan was put in place to allow the VIP to sleep on the BBJ nearby if required.

SOVIPOPS was then requested to deal with passenger recovery plans.

010 Engineer

An engineer was in town with the BBJ crew who was CL604 qualified. He was called and requested to present at the CL604. He asked the crew to engine run the engine and see if the faulty generator could be reset. The crew conducted the engine run and the generator would not reset.

The engineer confirmed this when he arrived and conducted fault finding activities.

011 Crew discussion

A discussion about suitable options was not conducted airborne as the options seemed obvious to the pilots. The crew debriefed after landing on the ground. The crew did not consult any external agencies prior to making the decision to land at destination.

Hazard Reports - Full Listing

012 Aircraft history

The aircraft had recently come out of heavy maintenance.

Since coming out of heavy maintenance, this aircraft has had four other materiel issues including a fuel leak, brake accumulator fail, flap fail and a panel falling off during flight.

013 Generator

The generator was determined to be faulty after maintenance fault finding. It had recently come direct from overhaul and had only accrued 3.9 hours and 3 cycles since. A new generator was fitted in location and the aircraft returned to Canberra.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Unreliable/Faulty / 1

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Miscalibrated / 2

Defences

What, if anything, limited the consequences of the occurrence? / Philosophy / Crew Resource Management

Detection - How was the problem revealed? / Aircraft on-board warning systems

What, if anything, limited the consequences of the occurrence? / Philosophy / Training

Risk Management

RM Strategies: 34SQN MRP 341

RM Effective: Yes

RM Narrative: MRP 341 addresses airborne equipment failure and subsequent diversion. In this instance, the associated risk of (generator) failure was managed using the extant controls as identified in the MRP.

Actions

001 * Completed *

Actionee: s47F

Assigned Date: 12-Jun-2017

Title: CL604 Brief

Action Details: This incident and the issues associated with the PA are to be briefed to CL604 crew at the next capability meeting.

Response: Unit Action added and tracked via 34SQN SharePoint task 395. Task is expected to be completed by 30 Jun 17.

002 * Completed *

Actionee: s47F

Assigned Date: 19-Jun-2017

Title: CL604 CREWATT Training

Action Details: Recommend review of CL604 CREWATT training with respect to PA and chimes. In this instance the CREWATT said that they heard an unusual chime, but were unsure what it was. This was in fact the PA, which was being used to convey the EMERGENCY PA to alert the CREWATT.

Response: Tracked in 34SQN Sharepoint task 446 - Safety section. Sharepoint task complete.

Training Flight Commander has actioned all recommendations including implementation of CL604 PAs during CREWATT 604 initial training.

Hazard Reports - Full Listing

Recommendations

001 * Rejected * * Completed *

Name: s47F

Agency: Special Purpose Aircraft Management

Unit
Recommendation Date: 12-Jun-2017

Title: CL604 PA System

Recommendation: SPAMU to audit CL604 PA system functionality and volume for emergency events in light of this incident

Response:

Reason For Rejection: 17AUG17. TD. s47F advised that this was discussed with 34SQN Exec, and that 34SQN Exec have taken charge of this aspect and completed aircrew evaluation themselves. SPAMU do not have the expertise to decide on volume levels and the SQN will advise if volume levels are inadequate. At this stage there are no reports to SPAMU of inadequate PA volume levels and no previous incidents to indicate a trend in this area. SPAMU will act immediately if further reporting eventuates.

Damage Details

Nil

Component Changes

42 - 04 IDG failure, which is attached to the accessory drive unit.

Related Correspondence

Nil

Unit Review

Supervisor Comments

Decision Making Process:

The crew's decision to land in Hobart in this case is supported. Consideration could have been given to employ a more robust decision making process due to the non time critical nature of the incident to ensure as many options and consequences had been considered. Decision making models such as GRADE or SADIE provide a framework for crews to effectively gather relevant information, communicate issues and consider potential consequences whilst aligning crew members' mental models.

Cabin crew actions:

It is prudent that cabin crew members provide a report to the flight deck in a timely manner should they experience a non normal situation (such as all lights extinguishing in this case). Cabin crew are the eyes and ears of the back of the aircraft. Furthermore, should the cabin crew hear an audible tone over the PA system which is unexpected that crew member should take the initiative and report to the flight deck to ensure operations are normal.

VIP operations:

Finally, if crews are experiencing any difficulties with passenger communications they should consider handing over responsibility to VIPOPS or SDO.

CO Comments

The crew actions are supported. While the Supervisor's comments relate primarily to the crew conduct related to the mission, the primary responsibility of the Captain is the safety of the crew and aircraft. The electrical fault led the crew to landing at a suitable airport given the fault and phase of flight, and those actions are supported. A task is placed on CL604 FLTCDR to review the airworthiness of the audible alert to ensure it is appropriate for alerting cabin crew.

Board Review

Board Review Comments

23AUG17. TD. ASOR has been reviewed and closed by OC84WG. (J4771067)

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-020-2017-SASOR 1

References:

- A. ASOR 34SQN-030-2017
B. ASOR 34SQN-035-2017
C. ASOR 34SQN-038-2017
D. ASOR 34SQN-005-2017
E. ASOR 34SQN-029-2017
F. ASOR 34SQN-032-2017

Workflow Phase: Historical

Classification: Incident

Title: Human / Other(Human) / Passenger use of mobile phone in flight

Occurrence Date Time: 26 1425 LOCAL Jun 17

Location: Melbourne
ILS RWY 16, approximately 1nm to touch down.

Parachute Incident Report: No

Movements Incident Report No

Physiological Incident Report: No

Telephone Notification to: **DDAAFS:** Yes **ATSB:** No

Weather:

Light Conds: Day **Meteorological Conds:** VMC **Environmental Facts:** N/A

Aircraft Details

s47E Challenger 604 /s47E

Last Dep Point: YMLT

Intended Land Point: YMML

Mission: Operations

[illegible]

Hazard Reports - Full Listing

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

CP / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

AMAC / CREWATT B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

AMAC / CREWATT U / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

On descent into Melbourne on ILS finals, the crew attendant (CREWATT) noticed a passenger talking on their mobile phone. The aircraft touched down several seconds later with no further incident, and the passenger was reminded of their obligation to aircraft safety to adhere to PED requirements onboard.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Sequence of events

The crew were conducting a VIP task and were flying into Melbourne at the time of the incident. The crew consisted of two pilots and two CREWATTs; A CEWATT instructor (CA1) occupying the jump seat at the time of the incident, and a student CREWATT (CA2) seated in the rear of the cabin.

The CA2 observed what appeared to be a passenger talking on their mobile phone, but were not certain at the time. On further observation they soon came to the realisation that the passenger was talking on their mobile phone. Due to the phase of flight (short finals) when they observed the passenger talking on the mobile phone, and as they were still under instruction, they did not say anything at the time.

After landing in Melbourne, the CA2 made their way forward as per SOP, and notified CA1 about the passenger talking on their mobile phone. The passenger in question was identified, and as they were exiting the aircraft CA1 reminded them of their obligations with regards to the use of personal electronic devices during flight. The pilot's were notified of the incident once all passengers had left the aircraft.

002 34Sqn

PED use in flight

All passengers travelling on 34SQN Special Purpose Aircraft receive a Safety Brief delivered through either the in-flight entertainment (IFE) system, or directly from the CREWATT IAW 84WG CL604 SI(OPS) 04-02. This is conducted prior to task departure, with subsequent sectors of the task not requiring a passenger brief unless new passengers join the task. The Safety Brief through the IFE includes instructions to turn any PED to 'flight mode', or off.

On the day of the incident, the passengers were given the full IFE Safety Briefing which included the instruction to place all PED to 'flight mode', or off. The incident occurred during the second sector of a three sector day, although as per SOP, a Safety Briefing was not given at the start of this sector. Passengers were however briefed at the start of the day.

Current instruction (84WG CL604 SI(OPS) 03-109) stipulate that any PED must be placed into flight mode, or if they do not have this function, then turned off. No radio transmitting devices or mobile devices without a flight mode function is to be used in flight.

003 34Sqn

Similar occurrences

Earlier in 2017, a CL604 experienced NAVAID interference whilst flying to Richmond from Canberra. The crew subsequently discovered that there were some PEDs within the cabin not selected to flight mode at the time. The investigation did reveal that this could have attributed to the NAVAID interference, but the most likely outcome was the limitations of the Richmond NDB at the time of the incident.

Since this incident, there have been five other occurrences of PEDs being either used in flight, or not switched to flight mode or off. These occurrences have also increased in severity with clear violation of current policy with passengers answering their phones in flight. When these incidents have occurred, the passengers are reminded of their obligation, and offered the use of the on-board SATPHONE. A majority of the time, this offer is declined.

A PED awareness briefing has since been developed, and will be played to all passengers flying on both CL604 and BBJ with a Flying Order to be released in due course.

Hazard Reports - Full Listing

Findings

001 Sequence of Events

The aircraft was on final approach to Melbourne airport when a passenger was observed to have been using their mobile phone. The passenger was reminded of their obligation on the use of PED in-flight.

002 PED use in-flight

Current regulations prohibit the use of PED in flight without the PED being selected to flight-mode. Passengers are also briefed on these requirements. In this incident, the passenger violated these regulations by talking on their mobile device in flight.

003 Similar occurrences.

There had been a spate of occurrences in the CL604 during 2017 relating to PEDs not being selected to flight-mode, and being used in flight. A PED awareness briefing has been developed and will be rolled out in due course.

Contributing Factors

Unsafe Acts or Conditions / Violations / Routine / Failed to Adhere to Brief / 1

Unsafe Acts or Conditions / Violations / Routine / Failed to Adhere to Regulations / 1

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Equipment / Other

Risk Management

RM Stragtagies: Task flown under MRP 341

RM Effective: N/A

RM Narrative: The task was flown under MRP 341. PEDs not selected to flight mode is not an identified risk however, assumption are made that all passengers will follow crew instruction which should include all safety briefings. There are passengers who will exceptionally violate following crew's instructions, and this is something that can't be risk mitigated.

Actions

001 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 27-Sep-2017

Assigned Date: 27-Sep-2017

Due By Date: 27-Sep-2017

Title: PED Awareness briefing

Action Details: Additional briefings for passengers required to raise awareness of obligations with PEDs in-flight.

Response: PED awareness briefing DVD has been developed, and Flying Order expected to be released prior to the end of September 2017.

Recommendations

001 * Accepted * * Completed *

Agency: 86WG

Name: s47F

Recommendation Date: 27-Sep-2017

Title: PED interference

Recommendation: Recommend both the BBJ and CL604 fleet receive T-PED tolerance testing similar to 84WG C-130J (84WG C-130J SI(OPS) 03-109) to gain T-PED approval for use in-flight including Cellular Data use.

Response: WASO 24 Oct 17: Minute drafted.

WASO 20 Nov 17: Minute to SPAMU requesting PED tolerance testing/clearances signed and dispatched. See L10788924.

Hazard Reports - Full Listing

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

The crews actions are supported and have been consistent with previous 34SQN aircrew responses to unauthorised passenger PED use. The incident highlights the unfortunate complacency of some of our passengers, which may be associated with the pressures associated with their roles. This does not negate the need to provide a safe aviation system. A trial operating procedure has been approved by CO34SQN via 34SQN Flying Order in attempt to reduce the likelihood of passenger PED use during flight. This involves the use of visual displays on the aircraft air show systems to amplify the safety importance of shifting emitting devices into a Flight Mode prior to departure.

CO Comments

As per previous 2017 comments on PED ASORs, the Squadron is working with SOVIPOPS regarding a targeted communication strategy to government passengers. At a local level, 34SQN is now using a PED awareness DVD that plays on taxi and prior to top of descent.

Resolution

Resolution Comments

WASO 24 Oct 17: Q score 4. Recommend OPEN until recommendation 002 complete.
WASP 20 Nov 17: Recommendations completed. Rec close.

A/WMASO 05 Dec 17: Noted, Rec close. Q score 4

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 07 Mar 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279017

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-027-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Maintenance / Powerplants or APUs / APU PUMP fail

Occurrence Date Time: 21 0930 LOCAL Jul 17

Location: Other - Please Specify
YHBA - on the ground in Bay 1

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day Meteorological Conds: N/A Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point:

Intended Land Point:

Mission: Operations

s47E				

Personnel Details

CP / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

During engine shutdown on the ground in YHBA, the APU PUMP EICAS illuminated three times for several seconds at a time. The crew conducted the normal shutdown procedure and checklist prior to conducting the APU PUMP checklist. The APU was shut down IAW with the checklist.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Initial 'APU PUMP' Indications

The crew were on the second day of a three day VIP task and were flying from Bundaberg (YBUD) to Harvey Bay (YHBA) then onto Brisbane (YBBN) later in the day. The task went without incident up until the departure out of YBUD. After take-off out of YBUD, the crew started to receive intermittent 'APU PUMP' master caution on the Engine Indication Crew Alerting System (EICAS). These indications were of an intermittent nature and not lasting more than a few seconds.

As these indications eventually cleared, the APU was shut down as per normal operating procedures. The crew had a short flight time from YBUD and YHBA, and it was conducted without incident. On arrival into YHBA, the APU was started as per normal operating procedures, and all aspects of the arrival went without incident. Once the passengers had disembarked the aircraft, the 'APU PUMP' master caution had re-illuminated, and it was at this stage that the Aircraft Captain (AC) thought that there could be an issue with the APU fuel pump. A travelling engineer on-board the aircraft confirmed this once they were made aware of the situation.

002 34Sqn

Crew actions

The AC was aware that they did not have a lot of time until damage would be done to the APU. The crew consulted the Bombardier Challenger 604 - Quick Reference Handbook - RAAF - Abnormal section for the appropriate 'APU Pump' checklist. Whilst on the ground, this called for the APU to be shut down. To minimise damage to other aircraft systems, the AC elected to conduct the 'Securing Checklist' which included shutting down the APU. This was completed within minutes of the 'APU PUMP' caution re-illuminating.

As the APU was planned to be used for the entire duration on the ground (for electrical power and air conditioning), the crew required the APU issue to be rectified. The engineer conducted their inspection (see 03 Maintenance Comments) and it was determined that there was an issue with the APU fuel pump. The RAAF SPA BOMBARDIER CL604 Minimum Equipment List (MEL) was consulted, and an MEL was applied to the APU fuel pump issue. This limited the crew to certain restrictions such as being able to utilise the APU for a maximum of 10minutes from start-up to shut down, and only to be used for one engine start.

The crew were on the ground for some time prior to the VIP returning to the aircraft and the crew consulted with the 34SQN Duty Executive, VIP operations and maintenance support to be able to continue with the mission. As there was no suitable ground support equipment available to the crew, it was deemed necessary to start the right engine utilising the APU, shutting the APU down and having the right engine running for some time to provide electrical power and air conditioning prior to the passengers arriving. This allowed the crew to prepare the aircraft for the following sector. The passengers would then enter the aircraft as per normal procedures, and a cross bleed engine start would be conducted on the left engine. Information was forwarded onto the passengers about the engine running whilst they boarded the aircraft, and they were satisfied with the situation. This was conducted and went without incident for the flight to YBBN.

On arrival into YBBN, the crew shut down the left engine and the right engine remained on whilst the passengers disembarked. All securing checklist items had to be conducted prior to the right engine being shut down as there was no external power to connect to the aircraft. The following day the crew had to utilise the same procedure as was conducted in YHBA to prepare the aircraft for flight. The passengers were made aware that there would still be a lengthy process prior to departure and the rest of the task was conducted without further incident.

Hazard Reports - Full Listing

003 34Sqn

Maintenance comments

s47E was underway on task 040. On 21st July following arrival and engine shutdown in YHBA, the APU Pump caution displayed on EICAS multiple times leading to the following action:

A travelling engineer was on-board who carried out an initial investigation in consultation with the crew. The indication was consistent with an APU boost pump failure, however due to being away from base, parts were not readily available to replace the boost pump.

MEL 28-25-1 provides relief for APU boost pump inoperative. The travelling engineer invoked the MEL, and briefed the crew on the implications of operating under the MEL including:

- The APU can only be run for a maximum of 10 minutes on ground.
- The APU can only be used to start one engine.
- The APU is considered INOP for flight.

The remainder of the task operated as scheduled, with a combination of APU/Engines running to provide ground services during transits in YHBA and YBBN. Following return to CBR on 22nd July, the APU Fuel boost pump was replaced with a stock item, rectifying the fault and removing the MEL. The aircraft returned to service the same day.

004 34Sqn

APU Fuel Pump

A constant-speed gas turbine APU is installed in a fire-resistant compartment in the aft equipment bay of the airplane.

The APU drives a generator providing AC electrical power during ground operations, and serves as a backup AC power source in flight. The APU also provides pressurised bleed air to the 10th-stage manifold for air conditioning and engine starting.

A generator adapter transfer APU rotational power from the gearbox to the APU generator. The adapter has a dedicated pressurisation lubrication system with pressure and temperature switches that monitor oil system parameters. It is independent from the accessory gearbox lubrication and a separate filler cap with an integrated dipstick for servicing.

The oil within the generator adapter lubrication system is cooled by a fuel/oil heat exchanger. The cooling fuel supply to the heat exchanger comes from the normal APU fuel feed via the right main tank. If the normal feed is not available, generator adapter oil can not be cooled, and the APU operating time is limited.

An APU fuel pump draws fuel from the right main tank. The pump provides fuel to the fuel control unit through the feed line to the APU fuel control unit through the feed line and the APU fuel shutoff valve. A portion of the fuel from the APU fuel pump is directed to the APU fuel control unit for combustion, while the remainder is routed through the fuel/oil heat exchanger to provide cooling of the APU generator adapter oil.

Fuel that has passed through the fuel/oil heat exchanger is returned to the right main tank. If there is insufficient APU fuel pump output pressure, it will be indicated by an APU PUMP caution message and illumination of the PUMP FAIL switch/light legend on the APU panel.

In this incident, there was intermittent illumination of the APU PUMP master caution indicating insufficient output pressure from the APU fuel pump. This resulted in less fuel being able to sufficiently cool the APU generator adapter oil and as a result, limit the APU use to 10 minutes. The APU was also limited to being utilised for engine starting only.

Hazard Reports - Full Listing

Findings

001 Initial 'APU PUMP' message

The crew received intermittent 'APU PUMP' messages which eventually cleared on departure out of YBUD. The crew continued without incident until arrival into YHBA where the 'APU PUMP' caution re-illuminated intermittently, but at longer intervals.

002 Crew actions

As the 'APU PUMP' caution was illuminated for a longer intervals, the crew elected to carry out the 'APU PUMP' abnormal checklist. As there was no external power available to the crew, they had to conduct non-standard procedures to prepare the aircraft for flight, which included having the right engine on to provide electrical power. This also had to be conducted in YBBN.

003 Maintenance comments

The travelling engineer confirmed the fault with the APU fuel pump, and applied the appropriate MEL which had restrictions in place having an effect to normal operating procedures. The fault was not able to be rectified until the aircraft had returned to Canberra.

004 APU fuel pump

The APU fuel pump provides fuel to the APU which provides cooling to the APU generator adaptor oil. As there was insufficient fuel pressure from the APU fuel pump, the crew received the 'APU PUMP' caution, and subsequently shut the APU down. As no cooling was available to the generator adaptor oil, limitations were put in place which were associated with the MEL applied.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Unreliable/Faulty / 1

Defences

What, if anything, limited the consequences of the occurrence? / Procedures / Emergency/Abnormal Checklist

Detection - How was the problem revealed? / Aircraft on-board warning systems

Risk Management

RM Strategies: The crew were operating under MRP 341 and 343.

RM Effective: Yes

RM Narrative: The pertinent MRP relating to the risk of an aircraft system failure is MRP 341 as MRP 343 covers OCTA and Scenic operations. 341 does have the risk of an aircraft system failure leading to either aircraft damage, mission delay, or cabin service issues with faults within the aircraft cabin. In this incident, all of the controls were effective with an acceptable solution in place with the MEL applied.

Actions

Nil

Recommendations

Nil

Damage Details

Nil

Component Changes

24 - 02 Fuel Pump

Related Correspondence

Nil

Unit Review

Supervisor Comments

Hazard Reports - Full Listing

The crew's actions are supported. Recent guidance on how to treat momentary cautions that may reflect a more serious condition was considered here. The initial momentary Caution was considered however the disappearance of the message and lack of further evidence of a Pump Failure did not warrant further actions. The reappearance of the Caution was treated in a very professional manner considering all aspects of Safety, the aircraft system and the mission. This ASOR will be briefed once closed to amplify how to manage momentary Warning and Cautions.

CO Comments

This incident was well handled by the crew. Having an engine running while receiving pax and loading bags is a complicated sequence of events that involves multiple rarely used checklists. There is also the risk to Air Force reputation when explaining to VIPs that timings may be delayed due to Air Force equipment failing to operate as planned. In this incident, the crew were consummate professionals. They responded quickly to the challenge, and used their available resources wisely to achieve the mission.

Board Review

Board Review Comments

Closed OOS by OC84WG 10Oct17

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-029-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Human / Other(Human) / PED not in flight mode

Occurrence Date Time: 25 1130 LOCAL Jul 17

Location: Brisbane
A4 intersection RWY19

Parachute Incident Report: No

Movements Incident Report No

Physiological Incident Report: No

Telephone Notification to: **DDAAFS:** Yes **ATSB:** No

Weather: CAVOK

Light Conds: Day **Meteorological Conds:** VMC **Environmental Facts:** N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YBBN

Intended Land Point: YSCB

Mission: Operations

[illegible]

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

CP / B / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

OTH / OTH-Passenger / AuthOff: No / AC563 Report: No
Challenger 604 / **s47E**

AMAC / CREWATT U / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

AMAC / CREWATT C / AuthOff: No / AC563 Report: No
Challenger 604 / s47E

Hazard Reports - Full Listing

Prior to lining up on RWY19 (A4 intersection) at Brisbane Airport, the crew heard a ring tone coming from the cabin. The crew attendant seated in the cabin observed a passenger pulling out their PED, and made some selections, prior to placing it back in their pocket. This was followed by comments from a fellow passenger at the expense of that passenger not putting their PED in flight mode.

All passengers had received a safety briefing the night before as it was the first sector of the task IAW 84WG CL604 SI(OPS) 04-02, but did not receive a briefing on the day of the event as it was not required. Briefings include placing PED into flight mode.

ASOR entered in for tracking with an investigation into the use of PEDs currently being conducted for ASOR 34SQN-020-2017.

Related Correspondence

ASOR 34SQN-020-2017

Unit Review

Supervisor Comments

Passengers had been briefed previously regarding the use of PEDs on board. Until such time as aviation regulations have been amended, PEDs are to be in flight mode or off prior to flight.

CO Comments

34SQN continues to manage the relationship with VIPs and their staff via Crew Attendant Safety Briefs, and more formally with SOVIPOPS direct relationship with PM, GG and MINDEF staff.

The PED issue remains ongoing. The ASOR database is useful for tracking purposes, allowing 34SQN to provide evidence of breaches to tasking agencies.

Board Review

Board Review Comments

15AUG17. TD. Closed by s47F and s47F at 11AUG17 ASOR review meeting.

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-030-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Human / Other(Human) / Passenger observed utilising mobile phone device on approach

Occurrence Date Time: 03 1450 LOCAL Aug 17

Location: Cairns
Final approach runway 15

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point:

Intended Land Point:

Mission: Operations
VIP Mission

s47E				

Personnel Details

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

AMAC / CREWATT B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

AC / C-RHS / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

AMAC / CREWATT U / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

Hazard Reports - Full Listing

On a VIP task on final approach into Cairns, the two crew members seated in the cabin noticed the passengers texting on their mobile phones. The passengers were reminded of their obligations regarding PED use in flight.

Related Correspondence

Nil

Unit Review

Supervisor Comments

These occurrences will occur from time to time with personnel travelling on Special Purpose Aircraft. The crew carried out the appropriate actions, notifying the perpetrators in a timely fashion. The pilots did not notice any effects on the aircraft systems.

VIPOPS have conveyed the ADFs concerns to the passengers involved, and 34SQN will monitor and continue to report suspected PED non-compliances.

CO Comments

There has been an increase in the number of reports of passengers using mobile devices on 34SQN aircraft. It is reasonable to assume that, in 2017, passengers are aware of their obligations with regard to mobile phone usage on aircraft. Therefore, passengers are either choosing to increasingly ignore the direction of aircrew, or the aircrew are increasing the number of ASORs generated when they notice these infringements occurring. In any case, 34SQN continues to collate the ASOR data and communicate concerns to MINDEF, PM, and GG staff through SOVIPOPs.

Failing any discernible change to passenger PED habits, all 34SQN pilots have been briefed to take appropriate action to maintain the safe operation of the aircraft. This may include delaying a take-off or an approach until passengers comply with crew direction.

Board Review

Board Review Comments

23AUG17. TD. ASOR has been reviewed and closed by OC84WG. (J4771067)

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-032-2017

References:

A. ASOR 34SQN-020-2017

Workflow Phase: Historical

Classification: Event

Title: Human / Other(Human) / Passenger use of PED whilst airborne

Occurrence Date Time: 04 1700 LOCAL Aug 17

Location: Tamworth

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: Cloud in the area

Light Conds: Dusk Meteorological Conds: N/A Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YBRK

Intended Land Point:

Mission: Operations
VIP task

s47E				

Personnel Details

AC / QFI-C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 s47E

OTH / OTH-D Cat Crewatt / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 s47E

Hazard Reports - Full Listing

On approach into Tamworth multiple passenger devices were used outside of flight mode. The VIP used their phone to try and make a call/receive a voicemail whilst the CREWATT was serving them. Another VIP was also on their phone outside of flight mode composing a text message. The CREWATT reminded both of them to switch their devices into flight mode for the remainder of the flight, and offered the use of the SATCOM, however the offer was declined and the devices were switched off. The CREWATT notified another crew member onboard, but the pilots were only informed once on the ground at the final destination of Canberra.

Related Correspondence

Nil

Unit Review

Supervisor Comments

This continued trend of passengers using personal PED with disregard to direction and therefore aircraft safety is a concerning trend. This is one of multiple ASORs that highlight this ongoing trend. The crew's actions are supported. The highly professional manner in which the CREWATT approached the passengers with clear direction should be commended. The ongoing issue will be addressed through communication with MINDEF Office and with a minor amendment to extant procedures - a VIP suitable message will be displayed on the air show at top of descent to remind passengers of the importance of not using PED until safely on the ground. A Flying Order and supporting media will be in place by the end of September 2017. This task is being tracked in SharePoint.

CO Comments

There are an increasing number of PED events occurring on 34SQN aircraft. This is being addressed through formal correspondence from Air Force to government.

Board Review

Board Review Comments

11SEP17. TD. ASOR reviewed and closed by OC84WG. (J4810467).

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-033-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Human / Aircrew / Crew injury due to loading or unloading of bags, equipment or catering

Occurrence Date Time: 05 2000 LOCAL Aug 17

Location: Canberra

Home base - Defence Establishment Fairbairn

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: No ATSB: No

Weather:

Light Conds: N/A

Meteorological Conds: N/A

Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47

Last Dep Point:

Intended Land Point:

Mission:

s47E

Personnel Details

AMAC / CREWATT U / Trade Cat:Aircrew / AuthOff: No / AC563 Report:Yes-DEFEV17080750

What was the outcome of the incident?

Fatality: No

Serious personal injury: No

Incapacity: No

Minor personal injury: Yes

Exposure: No

Dangerous occurrence: No

Challenger 604 s47E

During a two day category C VIP task a CREWATT injured their back whilst completing one of or a culmination of the following: loading or unloading aircraft catering, loading or unloading of crew and passenger bags, or during the loading or unloading of aircraft equipment.

The injury was not immediately apparent, however was traceable to the specific category C task.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Task Details and Cabin Crew Composition

This was a two day task, comprising the following sectors:

04 Aug 17

YSCB-YMML - positioning

YMML-YPGV - six passengers

YPGV-YPDN - positioning

05 Aug 17

YPDN-YPGV - positioning

YPGV-YMML - nine passengers

YMML-YSCB - three passengers

Two CREWATTs were assigned to this task. One CREWATT was instructing (CA1) a previously qualified U Cat CREWATT (CA2) after a ground posting. This was the CL604 task CA2 had conducted since their return to flying.

002 34Sqn

CL604 Cargo Hold and Loading Procedures

The CL604 cargo hold is accessible via the cabin and an external, plug style hold door located on the LHS of the aircraft. Hold door dimensions are 109cm x 84cm, and the sill is 172cm from the ground. Inside the hold, two vertical cargo nets partition the hold into left and right sides separated by a triangular shaped standing area with a max width of 65cm. The nets are permanently fixed to the aft bulkhead, and secured by spring clips on the forward bulkhead from the floor to approximately 155cm high.

Role and aircraft equipment stored on the hold floor include the refuel PPE kit (roller case), aircraft scales, vacuum cleaner, two large umbrellas, four MLG chocks, and cockpit window shades.

The hold is loaded with crew baggage and equipment on the RHS, and passenger baggage on the LHS. To ensure the load does not move during loading, CREWATTs typically leave the cargo nets secured between knee and waist height. Crew baggage and equipment is loaded via the cabin, shortly after arriving at the aircraft. This will often include catering buffets boxes, dry ice sleeves and eskies, and potable water jerry cans. Loading the hold is similar to playing •Tetris• as the CREWATT must make efficient use of the limited space to ensure everything fits, and that inflight access is possible if required. Passenger baggage may be loaded either prior to passenger boarding, or simultaneously. Depending on the size and quantity of baggage, and the timing of the passenger arrival, this may be done either via the cabin, or the external hold door. If loading via the hold door, assistance is normally required from the ground handler, or another crew member (one inside and one outside the aircraft). The same is true for disembarkation and baggage unload may be concurrent with passengers disembarking from the aircraft.

Hazard Reports - Full Listing

003 34Sqn

Load, Passenger and Incident Details

Catering comprised five full buffet boxes. Each buffet weighs approximately 35lbs (16kg). Three were stored in the RHS cargo hold. There were four, cabin luggage style crew bags, each approximately 10kg and one restock tub as well. All items were carried up the aircraft stairs, and loaded in their appropriate position. During the pilot pre-flight, an issue was noticed which required a tail swap. Therefore all items loaded, were unloaded and reloaded into the new aircraft. To achieve the YMML slot time, the tail swap was completed with some time pressure.

In YMML, passenger baggage arrived approximately five minutes before passengers, allowing the crew to load the baggage into the LHS cargo hold. This baggage was loaded via the cabin.

The first day of task continued without incident, and CA2 did not note any pain or injury at conclusion of duty.

The second day commenced with reloading the crew baggage and five catering buffets, and then departed for YPGV. Baggage for the six original passengers arrived approximately 30 minutes before doors and was loaded via the cabin into the LHS of the hold. The CREWATTs attended the terminal in YPGV ten minutes before doors and made contact with airport staff who was concerned regarding security screening of the pax and baggage. CA1 remained in the terminal with the pax and CA2 returned to the aircraft to advise the captain regarding the delay. At this point the airport staff member came to the aircraft with four additional pieces of baggage. CA2 loaded this baggage. One piece of baggage was approximately 1.5m long, 40cm wide and deep, about 15kg. Three pieces were large suitcases, weighing between 20-30kg each. Baggage was not individually weighed, so baggage weight is from crew perception. These items were carried up the aircraft stairs, rolled through the cabin, and then lifted over the cargo net into the LHS side of the cargo hold. The passengers and CA1 returned to the aircraft shortly after, and the task departed for YMML.

On arrival in YMML, six passengers disembarked and their baggage was unloaded via the cabin.

On arrival in YSCB, the remaining passengers disembarked. CA2 indicated to the s47G ground staff there was baggage to unload, however they escorted the passengers to the terminal first, before returning to unload the luggage. In the meantime, the CREWATTs commenced the baggage unload. CA1 remained inside the aircraft and passed the baggage to CA2, who placed the luggage on the s47G baggage vehicle. The s47G ground crew then drove the baggage to the arrivals area. After completing the baggage unload, CA2 noticed their back was feeling stiff. CA2 concluded it was most likely due to not having worked on the CL604 since Dec 2014. CA2 continued to unload crew baggage and equipment, and completed post-flight duties.

Hazard Reports - Full Listing

004 34Sqn

Administration, Training and Standing Instructions

AAP3631.001 Manual of Air Movements: Part 4 Sect 2 Ch 2 limits passenger baggage to 23kg, and an additional baggage allowance of up to 15kg. The manual also provides a warning that no single piece of baggage should exceed 23kg, and that baggage between 23-32kg should be labelled with a heavy tag showing the actual weight.

84WG CL604 SI(OPS) 3-151 Load Management: Para 6 states cabin crew are to check the hold to ensure baggage weight data is accurate. Para 7 states each piece of baggage should be less than 23kg, and for items between 23-32kg a 'Heavy' label with the exact weight is affixed. Para 28 however states that when accurate checked baggage weights are required, the ground handling agent is to weigh the baggage prior to delivery to the aircraft, or for baggage delivered directly to the aircraft, aircraft scales are to be used. Standard baggage weights are used if baggage is not weighed.

84WG CL604 SI(OPS) 4-2 VIP Procedures and Carriage of Passengers: Para 66 exempts passengers from the baggage limits of AAP3631.001.

AAP7211.037-1CL-2 Cabin Crew Manual Challenger CL-604, does not specify hold loading procedures, nor notes, cautions or warnings associated with baggage loading. In Solo Procedures it mentions that co-pilot assistance can be gained to complete loading/unloading.

34SQN DRA-022 Manually Loading and Unloading Baggage requires CREWATTs complete annual manual handling training. Both CA1 and CA2 were current for this training on this task. The DRA also states that crew must use correct manual handling technique which is described in the manual handling training.

34SQN Manual Handling • Loading the Baggage Hold Continuation Training: Presentation says crew should unlatch cargo nets to floor level, and provides guidance on physical positioning and posture for manual handling technique. Completion of this training as a classroom refresher meets the requirement of DRA-022 annual handling training.

005 34Sqn

Post Task Actions

s47F

Hazard Reports - Full Listing

Findings

Timing of Event

Injury most likely occurred during the unload phase on arrival in YSCB. Injury was identified the day after task. Injury was exacerbated by an outside of work event.

002 *Working area for baggage loading/unloading*

The working areas for baggage loading and unloading include space limitations, and physical obstacles. When operating the hold from outside the aircraft, loads have to be lifted to at least shoulder height (depending on the member's height).

003 *Baggage Weights and Tags*

Neither passenger, nor crew baggage were weighed before loading. Therefore the requirement for 'Heavy' tags was not identified, nor the possibility that assistance may be required to load/unload the large pieces of baggage.

004 *Trigger point to weigh baggage*

OIP does not provide a clear trigger point when CREWATTs/handling agents should weigh baggage, and allows crew to calculate weight and balance based on a standardised weight.

005 *Manual handling technique*

Correct manual handling technique was not employed.

006 *Training*

Manual handling continuation training is ineffective. Continuation training package does not reflect the reality of CL604 operations.

007 *Deliberate Risk Management*

DRA-022 does not adequately address manual handling hazards for CL604 operations, and without accounting for the task inside an operational context. Listed controls are either not present, or ineffective.

008 *Immediate Risk Assessment*

Immediate risk assessment for loading and unloading the large bags was not conducted.

Contributing Factors

Unsafe Acts or Conditions / Errors / Skill-Based Errors / Failed to Recognise Limitations / 2

Unsafe Acts or Conditions / Errors / Skill-Based Errors / Poor Technique / 2

Unsafe Acts or Conditions / Errors / Decision Errors / Inappropriate Procedure / 2

Preconditions for Unsafe Acts / Substandard Practices / Training / Inappropriate Training / 2

Preconditions for Unsafe Acts / Substandard Practices / Training / Ineffective Training / 1

Preconditions for Unsafe Acts / Substandard Conditions / Workspace / Ergonomics / 1

Organisational Influences / Organisational Processes / Oversight / Risk Management / 2

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Procedures / Operator Reaction

Hazard Reports - Full Listing

Risk Management

RM Stragtagies: Mission conducted IAW MRP 341

Manual handling conducted IAW DRA-022

RM Effective: Yes

RM Narrative: MRP 341 does not address crew injury due to manual handling procedures. This has been included in the CRP for 34SQN transition from 84WG to 86WG.

DRA-022 does not accurately reflect manual handling hazards which occur during loading and unloading of 34SQN aircraft. DRA will be reviewed as a unit action to this ASOR.

Actions

001 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 21-Dec-2017

Assigned Date: 24-Sep-2017

Due By Date: 06-Oct-2017

Title: Review Manual Loading DRA

Action Details: DRA-022 is to be reviewed to ensure it adequately addresses all manual loading tasks on the CL604 and BBJ, and is reflective of those tasks in the operational context. Controls are to be reviewed to ensure their effectiveness and that they are routinely applied.

Response: 15 Oct 17 - JSAs have been completed for some of the hazardous manual tasks on the BBJ and CL604. Once complete, the DRA review will be completed. Unit action moved to sharepoint - Item 509

002 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 15-Oct-2017

Assigned Date: 24-Sep-2017

Due By Date: 06-Oct-2017

Title: Expand Manual Handling Roundtable

Action Details: SharePoint task 411 is for a roundtable discussion to improve BBJ baggage loading procedures. This task is to be expanded to include all BBJ and CL604 manual handling procedures. The intent to develop a holistic framework which reduces injuries from hazardous manual tasks.

Response: Roundtable has been expanded and is scheduled for 17 Nov 17.

003 * Completed *

Agency: 34Sqn

Actionee: s47F

Completed Date: 21-Dec-2017

Assigned Date: 24-Sep-2017

Due By Date: 30-Oct-2017

Title: Manual Handling Continuation Training

Action Details: Manual handling continuation training presentation is ineffective and does not enhance the safety of members engaged in manual handling tasks on 34SQN aircraft.

Presentation is to be re-designed having regard of all manual handling tasks on 34SQN aircraft, and include safe and repeatable manual handling procedures to assist in reducing crew injuries. Tasks to be considered include:

- Hold baggage loading
- Overhead baggage loading (BBJ)
- Cart and catering equipment handling.

Response: PTI's visited the SQN on the 25 SEP 17 to take new photo's for the manual handling presentation. Follow up with the PTI's will take place on the 9 OCT 17 to see where the presentation is at. Unit action moved to sharepoint - Item 509

Recommendations

Nil

Hazard Reports - Full Listing

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

Entered on behalf of XO 34.

While injuries from preventable activities are best avoided, the onus is on each and every one of us to ensure manual tasks are prepared for and carried out correctly. Administrative controls and initiatives are one part of the solution, but should be complimented by training in lifting techniques, and general strength and fitness training.

The amendments to the training material, designated squadron fitness sessions and SME guidance from Air Force agencies on manual tasks, will minimise preventable injuries. The squadron has a larger body of work looking at other ways to streamline loading of baggage and equipment into SPA aircraft which will further counter manual loading tasks.

CO Comments

Entered on behalf of CO 34.

Manual handling training has been improved. 34SQN SIs have a new instruction requiring Crew attendants to conduct RAAF PTI led conditioning on a regular basis. This now forms part of aircrew currency. Further efforts are being made in concert with 86WG to improve the equipment available to assist with baggage loading. CO34SQN Directive 03 of 2017 refers.

Resolution

Resolution Comments

WASO 10 Apr 18

34SQN SI(PERS) 53-2 Aircrew Physical Conditioning Program was released in March 2018 detailing training and strengthening program for crewatts.

34SQN have also submitted a statement of need for loading equipment to further reduce the risks of manual loading - this task is with AMG Capability Development.

Q score 4 rec CLOSE

A/WMASO 10 Apr 18: Rec close, Q score 4.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Hazard Reports - Full Listing

Actions

* Completed *

Agency: 86WG

Actionee: s47F

Completed Date: 10-Apr-2018

Assigned Date: 05-Apr-2018

Due By Date: 05-Apr-2018

Title: Update CRP 01 to include Challenger Manual Handling

Action Details: The SQN investigation describes how the manual handling risks were not contained in MRP 341 (which existed when 34SQN was under 84WG at the time of the incident) but would be transferred to CRP 01 under 86WG. However, this was missed in the transition.

HTA Action is to add this risk to CRP01 to accompany similar risks already identified for BBJ and KC30A.

Response: WASO 10 Apr 18: Added to draft CRP 01 (AL7). This will be formalised at the next update of the CRP.

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 17 Apr 18 by D/WASO on behalf of OC86WG - Ref OBJ L11725882

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-035-2017

References:

A. ASOR 34SQN-020-2017

Workflow Phase: Historical

Classification: Event

Title: Human / Other(Human) / Passenger use of PEDs in flight

Occurrence Date Time: 25 1425 LOCAL Aug 17

Location: Sydney

Final approach 16R

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day

Meteorological Conds: VMC

Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point:

Intended Land Point:

Mission:

s47E
[REDACTED]
[REDACTED]
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Personnel Details

OTH / OTH-Crew attendant - C CAT / AuthOff: No / AC563 Report: No

AC / C-RHS / AuthOff: No / AC563 Report: No

CP / QFI-C / AuthOff: No / AC563 Report: No

On final approach into Sydney, the crew attendant heard several passenger's phones beeping. Passengers proceeded to check their phones and seemingly respond to the received messages. The crew attendant reminded the passengers of their obligation to have phones in flight mode in flight as it could interfere with radios and navigation equipment.

Related Correspondence

Nil

Unit Review

Supervisor Comments

The crew's actions are supported. As per comments in ASOR 34SQN-032-2017. The aim is to have additional measures in place by the end of September 2017 to reduce the probability of the passenger use of PED not in flight mode, in flight.

Hazard Reports - Full Listing

CO Comments

There are an increasing number of PED events occurring on 34SQN aircraft. This is being addressed through formal correspondence from Air Force to government.

Board Review

Board Review Comments

Closed OOS by OC84WG 10Oct17

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-036-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Materiel / Other(Materiel) / Runway pavement damage

Occurrence Date Time: 28 0850 LOCAL Aug 17

Location: Other - Please Specify

YCOM

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day

Meteorological Conds: VMC

Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YSSY

Intended Land Point: YCOM

Mission: Operations

s47E				

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 /s47E

CP / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 /s47E

A CL604 was tasked to fly a VIP to Cooma-Snowy Mountains (YCOM) airfield. A pavement concession (PC) waiver was obtained from the airfield manager for single use during this task. After the aircraft had arrived, the airfield manager emailed the unit to notify that there were visible signs of broken stones where the aircraft had touched down. The airfield runway is a PCN 12/F/A (84psi) runway. The aircraft at the time of the event was ACN 8 and the PC waiver was for the 193psi tyre pressure of the CL604. The crew had conducted a normal landing.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

34Sqn

Planning and prior approval

84WG CL604 SI(OPS) 03-111 Airfield Policy requires the aircraft captain to ensure the ACN is equal or below the approved pavement strength (PCN) for that airfield. If the aircraft exceeds the pavement strength of the airfield, a pavement concession must be obtained.

A CL604 pilot consulted the ERSA and confirmed the runway physical characteristics as PCN 12 / F / A / 580 (84PSI). CL604 tyre pressure is 193PSI, so a pavement concession was required. On 24 Aug 17, they phoned the YCOM Aerodrome Reporting Officer (ARO) and requested landing approval. The phone call was followed up with a formal pavement concession request via e-mail. The e-mail noted the max CL604 ACN on a FLEX A strip is 11, and with the expected operating weight for the task that ACN would be 8-9.

The incident captain was away on task from 24-26 Aug 17, so was not in the office to plan this task prior to departure. On 26 Aug 17, the captain contacted the FLTCDR to identify the PCN had not been received, and the FLTCDR subsequently contacted the ARO to confirm the PCN would be received prior to task departure on 27 Aug 17.

The PCN was received from the YCOM ARO via e-mail on 27 Aug 17, granting a one off concession for the movement on 28 Aug 17.

002 34Sqn

Pavement damage and notification

An e-mail was received from the aviation manager for YCOM on 28 Aug 17 at 1008. The e-mail noted that the VIP movement went well, but despite an excellent landing and reduced weight, 'landing left visible signs of broken stones on impact.'

The captain noticed nothing abnormal about the touch down, but did note the runway surface was quite loose.

The aircraft departed YCOM at 1400. The ARO did not speak to the crew during their time on the ground to discuss the damage, or offer them the opportunity to view the damaged area.

003 34Sqn

Future Movements

YCOM ARO has indicated that in future a PCN will not be approved for the CL604 and that 34SQN tasks to YCOM will require a smaller aircraft.

Findings

001 **Planning**

Planning was IAW OIP.

002 **Approval**

YCOM ARO granted a one off PCN for CL604 movement on 28 Aug 17.

Contributing Factors

Organisational Influences / Organisational Processes / Procedures / Instructions / 3

Defences

What, if anything, limited the consequences of the occurrence? / Procedures / Standing Instructions

Detection - How was the problem revealed? / Other

Hazard Reports - Full Listing

Risk Management

RM Stragtagies: MRP 341 BBJ/CL604 VIP/ALS

RM Effective: No

RM Narrative: MRP 341 does not include pavement damage as an outcome. With transition to 86WG this is now included in the CRP with appropriate controls.

Actions

Nil

Recommendations

001 * Accepted * * Completed *

Agency: 86WG

Name: s47F

Recommendation Date: 18-Oct-2017

Title: 86WG MAET Review

Recommendation: Recommend 86WG MAET review this ASOR and provide tyre pressure advice WRT this incident for future CL604 movements.

Response: WASO 15 Dec 17: As there is no 86WG MAET, I assume this recommendation is for AMCC MAET.
At this stage not really sure what this Recommendation is asking for. Query sent back to 34SQN L11157988.

WASO 5 Feb 18: Clarification received from 34SQN - the recommendation is asking if a tyre pressure ratio system, similar to ACN/PCN ratios contained in 86WG CL604 SI(OPS) 3-111 Airfield Policy is a valid way of forecasting likely damage to a paved surface. Query sent to AMCC MAET, ref Objective L11348760

WASO 13 Feb 18: Correspondence with Environment and Engineering Branch, Infrastructure Division on this issue conducted and contained at L11348760. A summary of the email and phone conversations is as follows:

- In this incident, the allowable Psi of Cooma is approximately equivalent to an unsealed runway
- Psi factors for airfields do not quite have the 'bulk' of engineering work behind them that the ACN/PCN system has
- Whether or not a Psi is appropriate for an airfield depends a lot on the physical airfield condition
- There is no recommended 'limit' or 'ratio' for airfield/aircraft type pressures, as it is subject to variable local conditions.

Without any form of engineering basis I cannot recommend any additional tyre pressure advice and recommend leaving the pavement concession waiver entirely with the airfield operator.

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

Due to VIP requirements, CL604s routinely operate into a number of airfields with PC waivers. The FLTCDR had been in regular contact with the ARO throughout the period leading up to the incident with no concerns raised by the ARO. The crew's actions are supported.

CO Comments

Hazard Reports - Full Listing

Airfield waivers have proven a highly successful method of achieving VIP requirements at an acceptable risk to the ADF. However, the risk of pavement damage is never eliminated, only reduced SFARP in consultation with the aerodrome operator.

Resolution

Resolution Comments

WASO 15 Dec 17 - Q score 3 recommend OPEN pending Recommendation 001.

WASO 13 Feb 18: Recommendations completed. Rec close.

A/WMASO 13 Mar 18: Rec close, Q score 4.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 19 Mar 18 by D/WASO on behalf of OC86WG - Ref OBJ L11563769

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-047-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Human / Procedures / Passenger manifest and aircraft weight and balance not dispatched prior to flight

Occurrence Date Time: 04 1100 LOCAL Oct 17

Location: Other - Please Specify
Griffith (YGTH)

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 / s47E

Last Dep Point: YGTH

Intended Land Point: YBWW

Mission: Operations

s47E				

Personnel Details

AC / C-RHS / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 / s47E

AMAC / CREWATT D / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Challenger 604 / s47E

The crew were on a two day VIP task. s47E

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

34Sqn

Event detail

The event occurred on day one of a two day task. The crew consisted of two pilots and a D Category Crew Attendant. On departure from Griffith the CREWATT was distracted by a passenger as they boarded and requested assistance with their equipment. The passenger was also asking questions regarding flight timings.

s47E

In accordance with 86WG SI(OPS) 06-01 Aviation Safety Management System this event would be classified as a lapse and as per the Safety Behaviour Chart in Annex D, coaching should be considered by the supervisor.

002

34Sqn

Documented procedures

CL604

86WG CL604 SI(OPS) 3-157 Payload Management states the Captain is responsible for documentation however it is usually completed by the CREWATT. The SI specifically states "The Aircraft Captain is responsible for ensuring an accurate C of G card is prepared, including persons on board (POB). A copy of the C of G card, passenger manifest, and any dangerous goods paperwork s47E

s47E

Although the manuals have different wording, if the higher level document is followed it achieves the goal of ensuring a copy of the flight paperwork is left with a responsible party.

BBJ

s47E

The BBJ Cabin Crew Manual AAP 7211.039-1CL-2 states the L1 Crew Attendant is to handoff weight and balance, manifest and DG paperwork IAW 84WG BBJ SI(OPS) 3-151. This instruction matches the requirements found in the new 86WG BBJ SI(OPS) 3-157.

Both the BBJ and CL604 Cabin Crew Manuals are currently being rewritten. A Unit Action will be added to ensure that during the manual review the process for handling manifests is written to correctly manage the flight documents or simply refer to the relevant 86WG SI.

Hazard Reports - Full Listing

003 34Sqn
Training

Crew Attendants are taught to correctly mark and hand off manifests during D Category Training on both aircraft types.

As per 34SQN Crew Attendant Journal CL604 Category D learning objective 1.4.2, D Category CREWATTs must be taught to mark the manifest correctly and hand off with the weight and balance sheet.

s47E

s47E

Both journals have no reference to manuals nor elaborate on the higher requirements of the relevant 86WG SI(OPS) 3-157. From the interview with the event CREWATT, it is possible they were never taught about the requirements of the higher level documents nor had a flight requiring handling the paperwork in the manner described in 86WG SIs.

Both journals are correct in ensuring that CREWATT students are taught to handle manifests, but it's important to ensure they are aware of the requirements of the CCM and 86WG SI. The journal description is also misleading as neither journal reflects the possibility of having three different documents (manifest, W&B sheet, DG) nor of handing it off in three different ways.

The event CREWATT is a qualified D Category CL604 CREWATT and was trained in accordance with the journal requirements.

004 34Sqn
Fatigue

The flight time included an early positioning leg from Canberra to Griffith departing at 0640. This required a duty time commencing at 0510. The CREWATT is currently residing in on-base accommodation and stated they were feeling fatigued from disturbed sleep. At the time there were frequent noises coming from a building next door to where they were living.

Hazard Reports - Full Listing

Findings

001 Event details

s47E

002 Documented Procedures

s47E

A lack of knowledge of higher level documents was evident in this case.

86WG BBJ SI(OPS) 3-157 and the BBJ Cabin Crew Manual are almost identical and the BBJ CCM refers the reader to the superseded 84WG SI.

Both Cabin Crew Manuals are being rewritten and will be reviewed for this issue prior to release.

003 Training

Both the BBJ and CL604 Category D journal have a training objective to handoff manifests, although the wording is different between journals.

Neither journal refers to the Wing SI, mentions the three possible documents to handoff, nor the three possible means of handing the documents off.

s47E

004 Fatigue

The duty start time was 0510. The CREWATT reported feeling fatigued due to noise emanating from another building next to theirs in onbase accommodation the night before task.

Contributing Factors

Unsafe Acts or Conditions / Errors / Skill-Based Errors / Failed to Prioritise Attention / 1

Unsafe Acts or Conditions / Errors / Skill-Based Errors / Omitted Procedural/Checklist Step / 1

Unsafe Acts or Conditions / Errors / Knowledge or Information / Inadequate Procedural Knowledge / 2

Preconditions for Unsafe Acts / Substandard Conditions / Adverse Mental States / Fatigue / 2

Preconditions for Unsafe Acts / Substandard Practices / Training / Ineffective Training

Defences

Detection - How was the problem revealed? / Aircrew

Risk Management

RM Stratagies: 86WG MRP 341 BBJ and CL604 Training

RM Effective: Yes

RM Narrative: 86WG MRP 341 correctly refers to 86WG BBJ and CL604 SI(OPS).

Hazard Reports - Full Listing

Actions

001 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 08-Feb-2018
Assigned Date: 16-Jan-2018 **Due By Date:** 12-Feb-2018
Title: Coaching
Action Details: IAW 86WG SIs the member should be coached to ensure they are aware of the requirements from all documentation (ie CCM and above), and also discuss techniques to ensure that routine and expected distractions can be managed to minimise chances of this happening again.

Response: s47E
It was also discussed how important it is to continue with your procedures IAW CL604 CCM and not become distracted.

002 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 08-Feb-2018
Assigned Date: 16-Jan-2018 **Due By Date:** 12-Feb-2018
Title: Cabin Crew Manual review
Action Details: The BBJ and CL604 Cabin Crew Manuals should be reviewed prior to release (approximately April 2018 as advised by 86WG WASO) to ensure the documented process for handing off paperwork (including manifests, W&B and DG paperwork) is written correctly and in accordance with the relevant aircraft type 86WG SI(OPS).

Response: SharePoint - Cabin Crew Manuals will be reviewed once the draft is released for 34SQN review.

003 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 08-Feb-2018
Assigned Date: 05-Feb-2018 **Due By Date:** 12-Feb-2018
Title: Crew Attendant Journal review
Action Details: The Crew Attendant Journal BBJ Category D and CL604 Category D should be reviewed to ensure the wording of the relevant learning objective is adequate, and the journals are being used correctly to instruct new Crew Attendants with reference to 86WG SI(OPS).
Response: SharePoint Training Section - Review Crew Attendant journals to ensure handling of manifest, W&B and DG documents, is IAW 86WG SIs.

Recommendations

Nil

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

Hazard Reports - Full Listing

Amending the CL604 and BBJ Category D Crew Attendant journal to incorporate all aspects of handling of manifests and weight and balance documents will minimise further occurrence of such incidents. This action is supported.

It is expected however that members strive to enhance their knowledge regarding their core role. Completing a journal is only the first step towards technical and professional mastery. Members must seek opportunities to develop. An example to consider may be that when time permits, during low workload period airborne, crews should consider facilitating discussions with each other surrounding SIs, technical knowledge or procedures.

Finally if a member is faced with any doubt concerning procedures, they must raise concerns with the captain. If the crew are unsure of the options available to them, there are many other avenues of support open to personnel on task, for example the Squadron Duty Executive or Squadron Duty Officer.

CO Comments

34SQN prides itself on professionalism and teamwork. Considering the error was not recognised for 24 hours, the most pleasing aspect of this ASOR is the junior CREWATT feeling comfortable enough to raise the issue with the pilots. In this instance, as in most cases, the simple act of raising a problem for discussion helps identify shortcomings in publications.

Resolution

Resolution Comments

WASO 5 Apr 18: 86WG, together with 33SQN and 34SQN, is currently rewriting the cabin crew manuals. This ASOR passed to the rewrite team for inclusion.

Q score 4 rec close.

A/WMASO 10 Apr 18: Rec close, Q score 4.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 13 Apr 18 by D/WASO on behalf of OC86WG - Ref OBJ L11725892

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-054-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Materiel / Other(Materiel) / Cabin privacy door failed closed

Occurrence Date Time: 18 1140 LOCAL Oct 17

Location: Canberra

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YWOL

Intended Land Point: YSCB

Mission: Other - Please Specify
VIP

s47E				

Personnel Details

AC / A / AuthOff: No / AC563 Report: No

On descent into Canberra (VIP sector) passing approximately 6000' AFE, the CREWATT was unable to secure the cabin privacy door (between the main cabin and galley) in the open position for landing IAW the CL604 Cabin Crew Manual. An s47G travelling Licenced Aircraft Maintenance Engineer (LAME) assigned to the task offered to tape the door in the open position for landing, which the captain accepted as a sound solution. This activity occurred in view of the VIP party, and was completed by approximately 4000' AFE. Sector was completed without further incident.

Related Correspondence

Nil

Unit Review

Supervisor Comments

Hazard Reports - Full Listing

The captain's decision to tape the door up under technical advice is supported and demonstrates flexibility in decision making. Risk to Air Force reputation is a large consideration at 34SQN with VIPs on board and it is apparent from the narrative that the crew were aware of this fact. The crew are commended for the calm and professional manner in which they dealt with the situation.

CO Comments

From an airmanship and maintenance perspective, this event was well handled by the crew. From an Air Force reputation perspective it is far from ideal, however given the door must be open for landing for safety reasons, the crew and LAME chose the best available option at the time.

Resolution

Resolution Comments

WASO 6 Nov 17: Rec close.

A/WMASO 21 Nov 17: Good use of LAME who used the best available option. Rec close.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 16 Feb 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279210

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-067-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Environment / Natural Hazard / WINDSHEAR ON FINALS

Occurrence Date Time: 06 1750 LOCAL Nov 17

Location: Sydney
200AGL RWY16R YSSY

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: Strong and gusty SW•ly winds down to 100AGL dropping off to S•ly winds at the surface

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YSCB

Intended Land Point: YSSY

Mission: Other - Please Specify
VIP CAT B TRANSPORT MISSION

s47E					

Personnel Details

CP / D-CAPT / AuthOff: No / AC563 Report: No

AC / QFI-C / AuthOff: No / AC563 Report: No

The aircraft was conducting a visual approach to RWY16R at YSSY with a CAT B VIP passenger on board. At approximately 200AGL a strong updraft was encountered and the aircraft instruments windshear caution was triggered. The crew carried out the OEM procedure and conducted a missed approach. The crew elected to return for another visual approach to RWY16R and landed without further incident.

Related Correspondence

Nil

Unit Review

Supervisor Comments

Hazard Reports - Full Listing

Crew actions are supported. The Hazard Report should have included how the event was relayed to the passenger at the end of the flight. Subsequent to the Hazard Report being written, information was presented that the VIP was informed in a suitable manner. Safety Section has been coached to ensure that future reporting considers communication to the VIP in the future.

CO Comments

This event was well-handled by the crew.

Resolution

Resolution Comments

WASO 23 Nov 17: Rec close

A/WMASO 05 Dec 17: Noted, Rec close

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 16 Feb 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279251

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-080-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Materiel / Engine / Bleed air warning in cruise

Occurrence Date Time: 18 1200 LOCAL Dec 17

Location: Other - Please Specify
Between Longreach and Albury.

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: CAVOK

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E Challenger 604 s47E

Last Dep Point: YLRE

Intended Land Point: YMAY

Mission: Operations
VIP Cat C tasking.

s47E					

Personnel Details

AC / QFI-C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
Challenger 604 s47E

During a VIP leg from Longreach to Albury, the R 14th DUCT warning appeared. After approximately 5 seconds it went away and then reappeared 10 seconds later. The crew actioned the associated checklist and the warning went away at idle power. The crew commenced a slow descent and diverted to Brisbane for a landing using the single engine approach and landing checklists.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Bleed Air Warning in Cruise

During the cruise phase of flight the crew received a 'R 14th Duct' master warning. This indicated a bleed air leak in the engine pylon or bleed lines in the fuselage.

The crew actioned the appropriate checklist which required the right hand engine to be reduced to idle power. The power reduction caused the warning to extinguish. The Aircraft Captain elected to keep the power at idle and divert to Brisbane. While there where closer divert airfields the Captain chose a longer diversion to Brisbane based on the services available, the availability of regular commercial air transport and the VIP passenger's preference.

The power available on the remaining engine was insufficient to maintain the current cruising altitude. This required a slow descent to the appropriate single engine altitude; approximately 30 000ft.

The crew completed the 'Single Engine Approach and Landing' checklist prior to landing at Brisbane. The right engine remained at idle throughout the approach and landing, however was considered available in the event of a missed approach.

The fault was confirmed by maintenance personnel after an inspection of the RH Bleed Air System.

Findings

001 ***Bleed Air Leak***

The bleed air leak was confirmed by maintenance personnel in Brisbane and repaired prior to being returned to service.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Unreliable/Faulty / 1

Defences

What, if anything, limited the consequences of the occurrence? / Procedures / Emergency/Abnormal Checklist

Detection - How was the problem revealed? / Aircraft on-board warning systems

What, if anything, limited the consequences of the occurrence? / Philosophy / Training

Risk Management

RM Stratagies: A checklist for the associated warning message was available to the crew.

RM Effective: Yes

RM Narrative: The crew actioned the appropriate checklist in a suitable time period. The caused the warning message to extinguish and resulted in a safe and efficient in-flight diversion.

Actions

Nil

Recommendations

Nil

Damage Details

Nil

Component Changes

41 - 00 A rupture in the bleed air lines was detected within the RH Engine Pylon.

Related Correspondence

Nil

Unit Review

Supervisor Comments

Hazard Reports - Full Listing

Crew actions are supported. The crew appropriately weighed up the competing priorities and in this case made a sound decision. The decision to overfly suitable airfields was not only supported by the QRH checklist, it also ensured minimal impact to the overall mission objective which was to support VIP transport. In this instance Brisbane airport provided the VIP with options to continue their travel which may not have been the case at regional/outback airfields. Ultimately had the decision resulted in an increased risk to safe operations and the situation deteriorated to the point an in-flight engine shut down would have occurred, a single engine approach and landing at a number of airfields enroute to Brisbane would still have been available.

Post maintenance activities were conducted to ascertain if the issue was evident on the remainder of CL604 fleet. Nil evidence reported.

CO Comments

This incident was well-handled by the crew, and is a good demonstration of reducing risk SFARP while airborne. Risk to Air Force reputation was also managed well, with minimal disruption to the VIPs schedule.

Resolution

Resolution Comments

WASO 22 Feb 18: Q score 4 recommend close.

A/WMASO 29 Mar 18: Rec close, Q score 4.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 29 Mar 18 by D/WASO on behalf of OC86WG - Ref OBJ L11668401

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-009-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Human / Medical / CREWATT injured whilst loading bags into BBJ Hold

Occurrence Date Time: 25 0700 LOCAL Apr 17

Location: Overseas

OMDB

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: No ATSB: No

Weather: 35 degrees.

Light Conds: Day Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E B737-BBJ / s47E

Last Dep Point: OMDB

Intended Land Point: OMAA

Mission: Operations
VIP mission

s47E			

Personnel Details

AMAC / CREWATT B / Trade Cat:Aircrew / AuthOff: No / AC563 Report:Yes-DEDEV17040848 (Sentinel)

What was the outcome of the incident?

Fatality:	No	Serious personal injury:	No
Incapacity:	No	Minor personal injury:	Yes
Exposure:	No	Dangerous occurrence:	No

B737-BBJ / s47E

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

Hazard Reports - Full Listing

The Crew Attendant Cabin Manager (CM) was loading crew bags into the BBJ hold (1A) on the first sector of a two sector day. Whilst manoeuvring a bag within the hold, the CM experienced some discomfort (twinge) in ^{S47} shoulder. The first sector was a short sector and the flight continued. Medical attention was sought from an onboard doctor travelling as a passenger during the intermediate ground stop. The doctor diagnosed a pinched nerve in the right shoulder.

During the longer international second sector the pain levels increased and the captain was consulted. This was the last sector before a crew swap at an intermediate port. The CM was not required for duty after landing and returned to Australia as planned on a civilian flight.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Loading

The task was a short 1 hour sector with VIP passengers and then a longer international sector on an augmented crew day.

The Cabin Manager (CM) was loading bags in hold 1A. Another crew member was passing the bags to [S47] and [S47F] was pushing them into the available space which is normal procedure.

A soft top bag weighing 16.5 kilograms was one of the final bags to be loaded. As the bag was being loaded, it was required to push it into the available space with considerable force - this required use of a pushing motion with one arm and considerable use of the shoulder.

002 34Sqn

Injury

As the bag was being loaded, the CM felt a slight twinge in [S47] oblique muscle in [S47] back. She noted that this was not uncommon when loading bags and thought nothing of it at the time. [S47F] operated the next short sector without further issue.

003 34Sqn

Subsequent leg

On the next leg, there were no bags to load. On the ground the CM consulted a travelling doctor in the VIP party about the twinge in [S47] back. The doctor advised [S47] to take Ibuprofen. The doctor was not an AVMO qualified doctor.

In the cruise on the subsequent international sector, the CM noted that the injury seemed to be getting worse and notified the Captain. Measures were put in place to ensure that any manual labour was completed by other crew members. The member placed [S47F] TMUFF after landing (noting that that was the end of the planned task).

004 34Sqn

SDO/AUTHO advice

The Captain was only informed of the injury on the final international leg when he noticed that the CREWATT was in the Comm Centre in pain. At this stage the aircraft was close to landing at the final destination of the task. The captain and CREWATT agreed that [S47F] would place [S47F] TMUFF on landing and seek further medical advice.

Due to the proximity to landing, the SDO and AUTHO were not consulted.

005 34Sqn

Training

Crewatts receive manual lifting WHS training on IET course. Cabin Managers receive training WRT BBJ baggage holds on Cabin Manager upgrade.

006 34Sqn

Safety Risk Assessment

A deliberate risk assessment (Obj link R22643384) was completed WRT loading of bags in Jan 17 with the associated risk assessed as VERY LOW. There has been one reported previous baggage loading injury in Sentinal (DEFEV14101382).

Hazard Reports - Full Listing

Findings

001 Loading method

The CM used a standard loading technique to position the passenger bag into hold 1A. This required significant use of arm and shoulder muscles due to the size and nature of the available baggage hold space.

002 Injury

After pushing the bag into the hold space, the CM noticed a muscle twinge in s47 back. This was not abnormal for s47 when loading bags and s47F continued on task.

003 Doctor consult

The CM consulted a VIP party doctor onboard (non AVMO qualified) who suggested the CM take Ibuprofen, which s47F did.

004 Continuation of task

The CM continued on task on the next international sector. During the flight, the pain in s47 back got worse and s47F advised the captain.

005 TMUFF

The captain only became aware of the injury on the final sector. The CM placed s47F TMUFF after landing after consulting the captain.

006 SDO/AUTHO Consult

The Captain only became aware of the injury on the final sector. Due to the proximity to landing, the SDO/AUTHO was not consulted.

007 DRA

A 34SQN Deliberate Risk Assessment was completed and approved in Jan 17 for manual loading of baggage.

008 Previous Incident

There was one previous baggage loading injury since Oct 14 at 34SQN.

009 Training

Cabin managers receive manual lifting WHS training as well as BBJ specific baggage loading training before becoming Cabin Managers.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Workspace / Confined / 2

Preconditions for Unsafe Acts / Substandard Conditions / Physical/Mental Limitation / Physical Characteristics / 1

Defences

Detection - How was the problem revealed? / Aircrew

Risk Management

RM Strategies: 34SQN DRA022 (Jan 17) addresses manual loading of baggage

RM Effective: Yes

RM Narrative: The assessment of risk WRT loading baggage identified that the risk cannot be isolated, eliminated or substituted on the BBJ. The risk was identified at VERY LOW, but was considered uncommon albeit possible.

Hazard Reports - Full Listing

Actions

001 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 24-May-2017
Assigned Date: 16-May-2017 **Due By Date:** 24-May-2017
Title: DRA Review
Action Details: USA and training flight to review DRA 022 and BBJ baggage loading training in light of this incident.
Response: DRA 22 reviewed on 24 May 17. Actions from the DRA are still awaiting completion. Task moved to 34SQN SharePoint task 408.

002 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 23-May-2017
Assigned Date: 16-May-2017 **Due By Date:** 24-May-2017
Title: Review of MRP/CRP
Action Details: UASO to review MRPs in light of this incident. Any anomalies to be included and tracked in CRP re-write Jun 17.
Response: Action item added to 34SQN SharePoint task 362 - 'CRP- MRP Review'. Expected completion is the end of June 2017.

Recommendations

Nil

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

Entered by ASO on behalf of BBJ OPSFLTCDR.

I support the review of our current MRPs and DRA as part of this investigation. No rock should be left unturned when it comes to the welfare of our personnel.

34SQN drives a passionate mission first culture, but we must be careful to be safe and not take on risks without consultation at the appropriate level.

The CA should have advised the captain as soon as the injury occurred, then further consultation at higher levels such as Authorising Officer or Duty Executive could have occurred prior to takeoff.

As military aviators we are in the business of risk management, both in the air and on the ground. Where we fall down is not asking who should be accepting the risk.

CO Comments

This is not the first time 34SQN personnel have been injured loading the aircraft holds. While the assessments point to the risk being very low, and we treat the existing risk with training for all personnel, it remains a concern that aircrew will likely injure themselves again in the future. Unfortunately, eliminating the need to load the cargo bays is not feasible, nor is it practical to have motorised cargo loaders at the hundreds of airports we travel to annually. The option of outsourcing to civilian baggage loaders is feasible, but simply transfers our military risk to a civilian. As mentioned by the supervisor, we will continue to review our risk assessments and endeavour to consult widely for possible solutions to this ongoing problem.

Board Review

Board Review Comments

Closed OOS by OC84WG 09Jun17

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-012-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Environment / Natural Hazard / Ice Crystal Icing (ICI) Event

Occurrence Date Time: 03 2215 LOCAL May 17

Location: Overseas

Waypoint GITON on B580 (200nm north of NFFN)

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: Embedded CBs to FL550

Light Conds: Night Meteorological Conds: IMC Environmental Facts: N/A

Aircraft Details

s47E B737-BBJ / s47E

Last Dep Point: YSSY

Intended Land Point: PHNL

Mission: Operations

CAT B VIP MISSION

s47E					

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

CP / D-CAPT / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

Hazard Reports - Full Listing

The aircraft was operating at night at FL370 on airway B580, near waypoint GITON (approximately 200nm north of Nadi, Fiji). A tropical storm was indicated on the Jeppesen cyclone track charts in the area and Nadi Centre had passed revised relevant SIGMETs to the aircraft on CPDLC. A Jeppesen High Ice Water Content chart valid for the time and route of flight showed during pre-flight that there was considerable chance of experiencing ice crystal icing enroute in the area.

The PF was the relief captain and the PM was the co-pilot on the augmented crew. The aircraft captain was conducting crew rest and was not on the flight deck at the time of incident.

Whilst manoeuvring around weather on the radar (red radar paints to the side, yellow below) the TAT suddenly went from -23 to -2. St Elmo's fire had been occurring on the main windows for about 5 minutes and the aircraft was in continuous light to moderate turbulence. The PF identified the TAT issue (checklist states that ICI indication can include when TAT changes to around 0 degrees C) and called for engine anti-ice on (including engine start switches to CONT). The airspeed at this point changed from Mach (0.78) to IAS (240 KIAS) and the autothrottles starting hunting. The indicated airspeed decayed 5-7 knots. The PF then called for the Ice Crystal Icing checklist which was conducted. During the checklist, the TAT returned to normal and the indications of ICI ceased. The checklist was completed and the aircraft continued enroute to the destination.

Related Correspondence

Nil

Unit Review

Supervisor Comments

S47G has detailed information on ICI in the FCOM, QRH and FCTM; consequently, 34SQN understands this condition well, and this was displayed by the crew's knowledge of ICI pre-flight and actions airborne. 34SQN commonly sees the environmental indications of ICI such as temperature increase and St Elmo's Fire, but rarely do we see aircraft indications such as the ones experienced during this Event. 34SQN will continue to record ICI events on DAHRTS and provide feedback to crews on how to mitigate the risks of this environmental condition.

CO Comments

This incident was well handled by the crew. I have recommended to DDAAFS that this event be considered for targeted distribution across Air Force flying squadrons via the Spotlight publication or other media.

Board Review

Board Review Comments

Closed OOS by OC84WG 23May17. Well handled by crew

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-014-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Human / Aircraft damaged by ground support equipment / Aircraft damaged by external stairs

Occurrence Date Time: 25 1800 LOCAL May 17

Location: Canberra
34SQN Apron

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: No ATSB: No

Weather: CAVOK

Light Conds: Night Meteorological Conds: VMC Environmental Facts: N/A

Aircraft Details

s47E B737-BBJ / s47E

Last Dep Point:

Intended Land Point:

Mission: Operations
Cat B VIP mission

s47E				

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
B737-BBJ / s47E

CIV / CIV-GSE personnel / Trade Cat:External Contractor / AuthOff: No / AC563 Report: No
B737-BBJ / s47E

MAINT / TP / Trade Cat:External Contractor / AuthOff: No / AC563 Report: No
B737-BBJ / s47E

CP / C / AuthOff: No / AC563 Report: No

Hazard Reports - Full Listing

The aircraft was awaiting arrival of VIP passengers for departure. Due to the number of passengers, two sets of stairs were requested to be used, with one located at the front door and one at the rear door on the left hand side of the aircraft.

The co-pilot was conducting pre-flight checks in the flightdeck. He noticed a significant lateral movement of the aircraft, conferring with the Captain that it felt much like a very strong gust of wind. The CAPT confirmed that stairs were approaching the L2 door and asked both the engineer and rear galley CREWATT to check if any GSE had hit the aircraft as the wind was light and variable at the time.

The engineers determined that the rear stairs had struck the aircraft fuselage around the rear left door area whilst being moved into place. After a tech log entry and subsequent engineering inspection it was determined that the damage was superficial. The pilots conducted a final visual inspection and the task continued as planned.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Captain

The co-pilot informed the Captain that they had felt the aircraft move laterally similarly to a strong gust of wind. The Captain, having looked outside the aircraft and seeing stairs being positioned to the L2 door, asked the LAME Engineer to check if any GSE has hit the aircraft. After investigation the LAME came back and informed the Captain that the stairs had made contact with the aircraft and caused scratches in the paint work. This was written up in the tech log as superficial damage. The co-pilot and Captain completed a visual inspection of the damage and the task continued.

002 34Sqn

Co-pilot

The co-pilot was seated in the flight deck completing pre-flight checks and felt a lateral movement of the aircraft similar to the movement of strong wind gusts. The co-pilot informed the Captain of what they observed. After it was found that the stairs made contact with the aircraft and was written up in the tech log the co-pilot and Captain completed a visual inspection of the damage and the task continued.

003 34Sqn

Maintenance Actions

s47G positioned the NG Mobile Stairs at the Fwd L1 door, abiding by the Safety of Circle principles and using a spotter for the final positioning IAW NG requirements. The Ground Handling agent (34SQN Approved Contractor / Supplier) positioned the s47G Mobile Stairs, also abiding by the Safety of Circle principles and stated that they used a spotter for the final positioning. The GH agent confirmed the vehicle was stationary and the park brake had been set prior to the PTO being engaged which allows the stabilising jacks to be lowered. They indicated that the rear jacks appear to have lowered quicker than the front which in turn rocked the vehicle forward and contacted the aircraft.

The GH agent staff member stated that he immediately informed the s47G LAME. The s47G LAME performed an inspection and found the damage was limited to the external paint. He raised a Tech Log Hold Item for paint rectification and an s47G AIRS report number 2172. The aircraft was RTS and departed on time.

004 34Sqn

Circle of Safety Concept

Maintenance staff use the Circle of Safety concept which requires staff to:

1. Never approach an aircraft before the anti-collisions beacon is switched off and the all clear has been signalled by the person signalling the arriving of the aircraft.
2. Come to a complete stop at 5 metres from the aircraft.
3. Continue your approach slowly and come to another complete stop at 2 metres from the aircraft.
4. Continue your approach at a crawl pace to your final position always maintaining adequate clearance from the aircraft (s47G requires the use of a spotter).
5. Never drive under the wing of an aircraft unless the vehicle is required for underwing maintenance activities on that aircraft.

If equipment does come in contact with the aircraft you must report this immediately, so that an inspection can be conducted.

005 34Sqn

Safety Quality Notice

After this incident, s47G issued a SPA Safety Quality Notice number 17 of 2017 to all maintenance and ground handling staff, including approved contractors.

Hazard Reports - Full Listing

006 34Sqn

Contractor investigation

The GSE contractor was stood down by their company and completed DAMP testing. An internal investigation was conducted which was passed to 34SQN. The entire report is extensive (QF HIRO SR122666) , and identifies the main contributing factors for the incident to be 1) Operator error when the stairs were initially positioned too close to the fuselage on the fore end of the stairs, forward of the rear door 2) The design of the stair platform was not ideal for a tapering fuselage as the stairs are best suited to a square on contact with the aircraft 3) The condition of the rubber bumper on the stairs was worn which reduced the protective abilities of the rubber to damp the impact against the fuselage.

Findings

001 **Captain**

The Captain was informed that the aircraft moved significantly in a lateral direction. The Captain noticed rear stairs being position to the L2 door at the time and asked the LAME if the any GSE had made contact with the aircraft. Upon finding that the stairs made contact with the aircraft the Captain and LAME completed the appropriate entries on the tech log and the Captain visually inspected the aircraft before continuing on the tasked as planned.

002 **Co-pilot**

The co-pilot felt the aircraft move laterally and informed the Captain. Prior to departure the co-pilot went to visually inspect the damage before continuing the task as planned.

003 **Ground Handling**

The GH positioned to the stairs to the L2 door using the safety circle principles and used a spotter for the final positioning. After setting the park brake the GH lowered the stabilising jacks and noticed that the rear jacks appeared to lower quicker than the front which resulted in the vehicle rocking forward making contact with the aircraft.

004 **Contractor Stair positioning**

The operator initially positioned the stairs too close to the fuselage on the fore end (due to tapering of the aircraft fuselage)

005 **Stair design**

The design of the stair platform assumes a square-on connection to the aircraft. The stairs are not ideally suited to a tapering fuselage that is not a straight edge.

005 **Rubber**

The condition of the rubber bumper on the stairs was worn which reduced the protective abilities of the rubber to damp the impact against the fuselage.

Contributing Factors

Unsafe Acts or Conditions / Errors / Perceptual Errors (Due to) / Misjudgement / 1

Preconditions for Unsafe Acts / Substandard Practices / Training / Ineffective Training / 2

Organisational Influences / Resource Management / Equipment/Facility / Suitability / 2

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Procedures / Operator Reaction

Risk Management

RM Stratagies: MRP 341 addresses damage to the aircraft from GSE.

RM Effective: Yes

RM Narrative: This will be re-assessed in the new SPA fleet CRP expected mid year.

Actions

Nil

Hazard Reports - Full Listing

Recommendations

001 * Rejected * * Completed *

Name: s47F

Agency: Special Purpose Aircraft Management
Unit
Recommendation Date: 23-Jun-2017

Title: Review of Contracted GSE procedures

Recommendation: SPAMU to review contracted GSE procedures in light of this incident.

Response: This is the first instance of damage to an aircraft from this contractor in recent times. Further review could be taken if issues arise in the future.

Reason For Rejection: Contractually, SPAMU s47G do not have the remit to audit the contractors procedures. s47G safety have conducted an internal investigation of their staff WRT this incident.

Damage Details

Nil

Component Changes

11 - 04

Related Correspondence

Nil

Unit Review

Supervisor Comments

It is comforting to see the supporting agencies we use here at 34SQN deal with safety incidents with the same vigour as the Air Force. This is crucial to our operations where 3 or sometimes more organisations will be working in or around the aircraft at the same time. During this time on the ground, the captain has accepted the aircraft, but s47G, and s47G could still be conducting operations in close proximity until time of dispatch. Although there were no human factors from this incident reportable by Air Force, it is still important that we continue to report incidents like this in DAHRTS. Even if a situation like this is classified as an Event with external agency reports referenced, we can ensure the Air Force stays informed.

I support the Recommendation to further investigate the contractor's GSE procedures.

CO Comments

Supervisor's comments are supported. From Defence's perspective, while this is a contractor issue, the crew's actions and process subsequent to the incident are supported. The flow of information from s47G to the Captain and through the CoC was efficient and effective. The subsequent analysis by s47G was at an appropriate level of detail.

Board Review

Board Review Comments

23AUG17. TD. ASOR has been reviewed and closed by OC84WG. (J4771067)

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-023-2017

References:

Workflow Phase: Historical

Classification: Event

Title: Environment / Natural Hazard / BBJ Ice Crystal Icing Encounter

Occurrence Date Time: 30 2245 LOCAL Jun 17

Location: Overseas

Approximately 80-200 NM SE of AGGH (Soloman Islands) enroute to APIA Samoa.

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather: Convective Tropical weather and moderate icing and light turb.

Light Conds: Day Meteorological Conds: IMC Environmental Facts: Other

Aircraft Details

s47E B737-BBJ s47E

Last Dep Point: AGGH

Intended Land Point: NSFA

Mission: Operations
Cat B VIP

s47E				

Personnel Details

AC / C-RHS / Trade Cat: Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ s47E

Hazard Reports - Full Listing

During departure from Honiara, Solomon Islands enroute to Apia, Samoa, the aircraft encountered Ice Crystal Icing (ICI) whilst climbing above FL310 enroute to a planned FL390 Cruise altitude. Crew were familiar with ICI indications and had obtained High Ice Water Content (HIWC) forecasts prior to flight which showed HIWC in the Solomon Island area but not directly on or within immediate vicinity of planned track to Apia. The crew's expectation through out the climb, consistent with aircraft instrumentation observed prior to the incident and data obtained from flight planning products was an average ISA temp deviation at cruise of approx +10 to +15 to degrees. This corresponded to approximately -16 to -10 degrees TAT during the majority of the climb above FL300.

PF was LHS being evaluated by the CQ (Aircraft Captain) in the RHS. After encountering moderate Icing conditions and light turb, the PF observed the TAT rapidly increase to 0 degrees - a symptom consistent with ICI. Eng anti-ice was already on due to icing conditions. Around the same time, the FMC target airspeed began reversion from MACH to IAS and then began to fluctuate. (235 IAS - 244 IAS - but above the min manoeuvre amber band. The PF called for ICI QRH checklist which was then completed by the PM. The PF disconnected the Autothrottle system IAW the QRH after it appeared the aircraft was having trouble maintaining a safe stable airspeed and MACH. ISA deviation was observed at up to +28 degrees at FL370 and required the crew to request an amended cruise ALT of FL370 to increase performance. PF set an appropriate N1 to maintain the aircraft at safe stable airspeed and called for PM to set max continuous thrust to have excess thrust available. This was required at times to maintain a safe airspeed using manual thrust control. The aircraft (during the ICI checklist) was diverted left of route to exit the area of ICI and convective weather observed by radar below the aircraft - (YELLOW with areas of RED Right of track) consistent with the ICI QRH checklist. Engine N1 indications, TAT/SAT indication and FMC target IAS/MACH all recovered to those appropriate for phase of flight once significant Icing conditions were exited by the large off route deviation left of track. Automation was re-engaged and the aircraft continued to destination and landed without further event or incident.

Related Correspondence

Nil

Unit Review

Supervisor Comments

The crews awareness of the potential for experience an Ice Crystal Icing event shows that the way 34SQN aircrew have been made aware of the threat of Ice Crystal Icing both through monthly briefs and previous Ice Crystals Icing ASOR events, has been effective. 34SQN have an Ice Crystal Icing Brief and will continue to discuss the topic. The advent of moisture content charts within Jeppesen Chart tools have assisted flight planning and are commonly discussed during the authorisation process.

CO Comments

ICI has been a topic frequently briefed at 34SQN, and all aircrew are aware of the indicators and the required actions.

Resolution

Resolution Comments

WASO 6 Nov 17: Rec close

A/WMASO 21 Nov 17: Good use of SQN monthly briefs and QRH checklists on ICI. Rec close

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Hazard Reports - Full Listing

Board Review

Board Review Comments

ASOR made Historical on 16 Feb 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279024

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-026-2017-SASOR 1

References:

Workflow Phase: Historical

Classification: Incident

Title: Environment / Operational Hazard / Crew Extended Past Crew Duty Limit

Occurrence Date Time: 14 1800 LOCAL Jul 17

Location: Overseas

Singapore

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: Yes ATSB: No

Weather:

Light Conds: Dusk Meteorological Conds: N/A Environmental Facts: N/A

Aircraft Details

s47E B737-BBJ s47E

Last Dep Point: WSSS

Intended Land Point: YSSY

Mission: Operations

Cat B VIP Mission

s47E				

Hazard Reports - Full Listing

Personnel Details

AC / B-RHS / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

CP / B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT B / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT U / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report:Yes-TBA

What was the outcome of the incident?

Fatality: No

Serious personal injury: No

Incapacity: Yes

Minor personal injury: No

Exposure: No

Dangerous occurrence: No

B737-BBJ / s47E

AC / D / Trade Cat:Aircrew / AuthOff: Yes / AC563 Report: No

B737-BBJ / s47E

CP / D-CAPT / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT D / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

The task was the last leg of a major international task with a Cat B VIP. The incident crew were to operate the aircraft after a crew swap from the inbound crew at an international location. The crew had been in location for a number of days. During transport to the airport, one crew member (CREWATT) began to feel sick and began vomiting. On arrival at the airport, the crew member sought medical advice from a civil airport doctor. s47F

With the crew member TMUFF, the aircraft captain rang the SDO to discuss crewing options to ensure that the incident crew could operate the ensuing overnight flight. Consideration was given to the vomiting symptoms and the possibility of contagion or contamination from food, as the entire crew had eaten breakfast together that morning. The only suitable option was to extend the inbound crew (who had already operated a 12 hour crew day) and keep two extra pilots and one extra CREWATT on the next leg. The extension over the maximum allowable crew day was sought and approved.

On the final leg, one of the extended pilots remained as a passenger only whilst one operated in the cruise as relief pilot and sat in the jump seat for landing. The extended CREWATT operated the subsequent flight in the R1 position.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

Crew Composition

The mission was a major international task for a Cat B VIP. The aircraft was planned to operate Dubai to Singapore to Sydney to Canberra. Crew B (two pilots, 4 CREWATTS, 2 engineers) was planned to operate Dubai to Singapore and then hand the aircraft over to Crew A (2 pilots, 4 CREWATTS, 2 engineers) during a 1 hour refuel to depart Singapore at 2045h. Crew A would then operate Singapore to Sydney, and then after a further 1 hour refuel operate to Canberra.

Both crews had been in their respective departure locations for a number of days and were adjusted to their respective local timezones.

002 34Sqn

Crew A Pre-departure

Crew A had planned to depart the hotel in Singapore at 6pm. The transport however had been delayed and eventually arrived at 1830h (two vehicles). Whilst waiting in the hotel foyer, one CREWATT was asked by the Cabin Manager (CM) whether they were feeling ok. The CREWATT replied that they had a headache and had not yet eaten but were planning to eat at the FBO at the airport and that they were fine to operate the sector.

Once the two vehicles arrived, the crew was split into 3 and 3 for the journey to the airport.

003 34Sqn

Crew A sickness

When leaving the lobby of the hotel, the Crew A Cabin Manager (CM) noticed that one of the junior CREWATTS was not looking well. [REDACTED] had previously been physically sick two days before when there had been a sewerage issue in [REDACTED] hotel room that required [REDACTED] to move rooms. When asked by the CM how [REDACTED] was feeling, [REDACTED] stated that [REDACTED] had a headache and had not eaten anything, and had not been able to sleep as planned (afternoon nap before overnight flight). [REDACTED] said [REDACTED] planned to eat once at the airport at the FBO as food was available there.

On the way to the airport, the CM and two CREWATTS (including the CREWATT with the headache) were travelling together. The driver was driving fairly aggressively to make up time as he had shown up 30 minutes late. The CREWATT with the headache began vomiting and vomited a number of times and looked noticeably ill.

The CM discussed with the other senior CREWATT whether this had implications for the next sector, as the ill CREWATT did not look fit for flight. The CM notified the Crew A captain in the other vehicle to advise him of the situation. The crew also had communications with the aircraft which was airborne and close to Top of Descent for Singapore from Dubai. SOVIPOPS was also onboard the aircraft and the crew contacted the airborne CM to advise them of the issue.

On arrival at the FBO in Singapore, the Captain tasked the copilot to ensure that an airport doctor was available to attend to the ill CREWATT. [REDACTED]

The Crew

004 34Sqn

SDO Contact

The Crew A Captain advised the Crew B Captain of the ill member and discussed crew duty issues. The Crew B captain rang the Squadron Duty Officer back in Australia to discuss options to allow the task to continue.

Hazard Reports - Full Listing

005 34Sqn

Minimum crewing CREWATT

The minimum CREWATT compliment IAW Table 5 of 84WG SI(OPS) 2-1 for more than 14 passengers on a greater than 90 minute flight with a main meal was 1 CM plus 2 CREWATTs. The Crew A CREWATT composition was a C cat CM, a B Cat CQ training a U Cat (EP qualified but not BBJ Dinghy qualified), and the ill CREWATT (who was a C Cat). Para 19 states however that once a VIP task has commenced, the task may continue at Captain's discretion if the previous table is used, which is 1 CM and 1 CREWATT.

Crew A discussed whether a CQ with a U cat (who was EP qualified but not BBJ dinghy qualified) could be considered as 2 CREWATTs for the purposes of minimum composition, or only 1 (ie U Cat cannot be included). It was determined that a discussion with the authorising officer would determine whether the U Cat CREWATT could be included in the crew complement for the remaining flight. The Captain discussed this with the SDO.

006 34Sqn

Minimum crewing Pilot

The two pilots on Crew A who were to operate SIN-SYD-CBR were suitable to operate the task as planned. However, crew A had all had eaten breakfast together that morning in Singapore at the same restaurant (although different meals) and there was concern that the ill CREWATT may have had food poisoning. The SDO was advised of this and noted that to de-risk the next leg from cancellation or in flight divert, additional pilots would be beneficial.

There were no extra BBJ pilots in Singapore, nor could any be positioned there in the required timeframe. The only option to de-risk the task was for the pilots on the inbound aircraft to stay onboard for the subsequent sectors.

007 34Sqn

SDO Decision Making Process

The Squadron Duty Officer (SDO) was contacted by the Crew A Aircraft Captain and advised of the issue of the sick CREWATT.

The SDO gathered applicable information and contacted the following personnel:

SOVIPOPS. The SDO requested SOVIPOPS to call the duty AVMO for suitability of flight of member. and to request advice for the health perspective of passengers.

The SDO also requested consideration of the risk to the passengers due to the nature of the possible illness. SOVIPOPS advised the SDO in return after contacting the AVMO that the risk assessment was very low of the pax contracting any illness. s47F

Captain. Due to a previously obtained agreement to extend crew duty from OC for another reason, the SDO exercised the extension via phone to the Crew A captain. There was also discussion that the risk to the pilots was elevated due to the unknown nature of the illness (potentially contagious or similar due to eating together that morning). There were two pilots from Crew B that were not exposed to the illness, and the crew duty extension allowed those two pilots to be crew through to SYD if required.

A plan was discussed that if any signs of illness occurred for either crew A pilot, the new captain from Crew B would replace them in-flight. The AVMO also separately provided some advice to the Captain.

Crew B remaining in Singapore after landing.

SDO directed continuous support to member and assigned a senior CREWATT this task. DA advised. NOK to be advised - however member had already spoken to family.

Governance. A NOTICAS was developed, and the Defence Attache was informed and involved immediately. Both the OC and CO were informed.

Crewing in Australia. The SDO sent a new BBJ Captain to SYD to pick up the onward tasking and reduce the risk of fatigue associated with elevated stress of the captain dealing with multiple issues.

Hazard Reports - Full Listing

008 34Sqn

Crew B Extension

Ultimately, the two crew B pilots were tasked to remain on the aircraft as well as 1 CREWATT. This would not only allow the task to continue but would de-risk the task from in flight diversion if the crew A members became sick.

The three extended members had commenced duty at 0500 local time in Dubai (0100Z). When they landed in Singapore at 1935 local (1135Z) they had already operated a 10 hour 35 minute crew day. As a non-augmented crew IAW 84WG BBJ SI(OPS) 6-6, the maximum crew limits were 16 hours for a non-augmented crew with controlled inflight rest only, extendable by 1 hour by CO (or aircraft captain in extenuating circumstances). They could not complete the flight to Sydney within the maximum 17 hours, even with CO approval.

An extension of this crew would therefore require OC 84WG approval.

009 34Sqn

SDO Extension Request to OC

The SDO requested a crew extension from OC 84WG previously based on a separate issue. The details of this approval were to extend the crew to achieve the mission within the planned flight hours for a landing in Sydney.

The OC expectations were conveyed to the crew and were based on the Crew A captain becoming ill. They included cabin crew requirement to check on the crew at regular intervals, three pilots on the flightdeck for critical phases of flight, comm centre crew rest area quarantined for crew rest and crew A captain to rest after top of climb out of Singapore.

010 34Sqn

Preposition of BBJ Capt in Sydney

Once the plan to depart with the extra crew members from Singapore was made, the SDO decided to pre-position a BBJ Captain to Sydney to fly the Sydney to Canberra leg as a backup.

011 34Sqn

Singapore to Sydney Leg

The Singapore to Sydney leg departed with a crew composition of Crew A (2 pilots, 1 CM, 2 CREWATTS (1 CQ and 1 U Cat) as well as the additional Crew B members (2 pilots and 1 CREWATT).

The Crew B Captain conducted jumpseat duties during takeoff and landing, and cruise relief duties to allow the Crew A pilots to undertake in flight rest in the COMMCEN. The crew B copilot remained as a passenger in the rear row of passenger seats for the duration of the task. Both crew B pilots were passengers for the final SYD-CBR leg.

The Crew B CREWATT operated in position R1 for the sector to Sydney with the VIP, as this was deemed the least fatiguing position because the VIPs had stated that they just wanted to sleep and did not require a main meal service. At top of climb, the CM directed this CREWATT to take first rest shift in the COMMCEN, which he did. After landing in Sydney, he then operated as a passenger for the last sector to Canberra.

The aircraft operated the task to Sydney as planned and landed at 0620 Local (2020Z). The task then continued to Canberra and landed at 0830 Local (2230Z). The crew B total crew duty day was 0100Z to 2230Z. Including the final paxing sector, the crew B members operated a 21.5 hour crew day.

Hazard Reports - Full Listing

Findings

001 Crew Illness

One crew member on Crew A (SIN-SYD leg) became sick on the way to the airport from an unknown illness. This meant that they were TMUFF and could not operate the sector.

002 Crew A composition

Crew A (SIN-SYD-CBR) could complete the mission without additional crew, however, the SDO chose to request an OC waiver for crew duty to extend three crew B crew after the Dubai to Singapore leg to de-risk the Singapore-Sydney leg.

003 U Cat CREWATT

It was unclear from SIs as to whether a U Cat CREWATT (who was EP qualified but not dinghy qualified) operating with a CQ CREWATT could be considered for the minimum crewing requirements as per BBJ SIs.

004 SDO OC waiver

The SDO had previously been granted an OC crew duty waiver to extend the crew past the maximum augmented crew day of 18 hours to ensure that the task could be completed. The SDO exercised this waiver and advised the CO and OC accordingly.

005 Crew Duty Extension Crew B

Crew B (2 pilots and 1 CREWATT) were extended past the maximum crew duty augmented day of 18 hours. They ultimately operated a 21.5 hour crew day with appropriate approval.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Adverse Physiological States / Illness / 1

Organisational Influences / Organisational Processes / Operations / Operational Tempo / 2

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Philosophy / Crew Resource Management

What, if anything, limited the consequences of the occurrence? / Philosophy / Aviation Risk Management

Risk Management

RM Strategies: MRP 341 (and CRP) - assesses risk to mission and capability of crew becoming sick on task.

RM Effective: Yes

RM Narrative: The risk of crew becoming sick on task was not mitigated (as it is impossible to entirely prevent viral or bacterial contamination day to day). However, the risk to the mission being cancelled or delayed was appropriately managed. The risk of mission delay was still present, but additional controls put in place by the SDO mitigated this risk.

Hazard Reports - Full Listing

Actions

001 * Completed * **Agency:** 34Sqn

Actionee: s47F **Completed Date:** 23-Aug-2017

Assigned Date: 03-Aug-2017 **Due By Date:** 03-Aug-2017

Title: 84WG BBJ SI(OPS) 2-1

Action Details: Recommend that TRNGFLTCDR reviews the minimum CREWATT complement table in 84WG BBJ SI(OPS) 2-1 to determine whether additional advice reference U Cat CREWATTs with CQ/IQ should be included as a note or separately in the table.

Response: There are two aspects to this Unit Action to be considered; the safety of flight issue and the customer service aspect. It must be noted that a Category U CREWATT is not a fully qualified CREWATT, but may be deemed to meet minimum standards in some aspects of the profession.

Safety of Flight. The minimum crew composition for non-VIP tasks is as per 84WG BBJ SI(OPS) 02-01 Table 4. This is considered the minimum CREWATTs needed for safe evacuation of the aircraft, or passenger coordination during an emergency for both Non-VIP and VIP tasking. All Category U CREWATTs are EP qualified before the commencement of their flying duties, thus all are considered effective crew members during an emergency.

Service Procedures. The minimum CREWATT numbers for service procedures is as per 84WG SI(OPS) 02-01 Table 5. The crew numbers quoted can be amended in various scenarios depending on FLTCDR advice.

Training outcomes. Training benefit is increased when a CREWATT under training is given dedicated supervision in all aspects of ground and airborne operation. As an example, this does not occur during international turnarounds when all CREWATTs are occupied. In this example, Table 5 should apply. In the case where the Category U CREWATT is not dinghy qualified, they should not be expected to occupy an emergency role associated with an evacuation. In this case, Table 4 should apply and the Category U CREWATT is ineffective.

The likelihood of crew members sickness on task is not uncommon (a couple of times per year), but in no instance has opting for a waiver and operating with reduced crew numbers resulted in unacceptable risk acceptance or undesirable outcomes to mission or safety.

The minimum numbers in Tables 4 and 5 do not need to be amended. However, Category U CREWATTs should not normally be considered part of the operating crew numbers. This will ensure maximum benefit to crew training with minimal risk acceptance and maximum service outcomes. The FLTCDRs should assess each task on its merits and determine the optimum crew operating numbers pre task.

A SharePoint task will be raised to amend the notes of Table 5 to consider tasking specifics before Category U CREWATTs are considered part of the operating crew for the purposes of VIP service outcomes.

Recommendations

Nil

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Hazard Reports - Full Listing

Unit Review

Supervisor Comments

Entered on behalf of Training FLTCDR 34SQN:

The variables in this incident highlight the complexities of operating internationally on VIP tasking within restrictive timelines. The unknowns in this occurrence necessitated hypothesising a likely worst case scenario, and understanding where the risk to flight safety was being exposed.

The main consideration was the possibility of the Singapore to Sydney crew contracting an illness mid-flight. The SDO and operating crews concluded that should this occur, the risk to flight safety would be greater than operating with a back up crew that has exceeded the maximum duty period. Although Australian advice deemed the possibility of contracting an illness was an unlikely scenario, based on the medical advice in Singapore at the time, it was a real possibility. The planning and assessment undertaken was commendable given the imposed timeline and vagaries of conflicting medical advice.

The Unit Action justifies not to amend 84WG SI(OPS) 02-01, however guidance will be given by the way of a note for FLTCDRs, Authorising Officers and Programmers to consider task specifics before reducing crew numbers. The crew at all times operated within the crewing aspects of the SI as it currently stands.

The eventual crew day was stated as 21.5 hours, which is considerably greater than what is currently allowable in 84WG SIs for SPA operations. The duty period experienced is comparable to other units in AMG, and although specifics of operations and rest facilities cannot be directly compared, I believe the risk analysis process and mitigation strategies employed reduced the flight safety risk to a level that is as low as reasonably practicable given the operational demands. This risk analysed approach should be emulated in any future occurrences of crew duty extension.

CO Comments

Entered on behalf of CO 34SQN.

This was an example of 34SQN's determination to achieve VIP tasking, while ensuring risk is accepted at the appropriate level. At all times during this complex crewing scenario, OC 84WG was provided with the best possible advice to inform his risk acceptance. At no point, did any 34SQN member believe it was appropriate to operate against Standing Instructions without first gaining approval from the officer who signed those instructions. I commend the crew, and those supporting this task, for their adherence to the Air Force philosophy of mission first, safety always.

Board Review

Board Review Comments

04SEP17. TD. This ASOR has been reviewed by OC84WG and closed. (J4796290 and J4779000)

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-060-2017

References:

Workflow Phase: Historical

Classification:	Event
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Title: Human / Physiological / Duty during crew rest period

Occurrence Date Time: 27 1200 LOCAL Oct 17

Location: Overseas

Bangkok

Parachute Incident Report: No

Movements Incident Report	No
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Physiological Incident Report: No

Telephone Notification to: **DDAAFS:** No **ATSB:** No

Weather: Not applicable

Light Conds: N/A **Meteorological Conds:** N/A **Environmental Facts:** N/A

Aircraft Details

s47E B737-BBJ s47E

Last Dep Point:

Intended Land Point:

Mission:

s47E [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Hazard Reports - Full Listing

Personnel Details

AC / C / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

CP / B-CAPT / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

CP / D-CAPT / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT D / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT D / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

B737-BBJ / s47E

The crew had arrived at the hotel in Bangkok at 2330 local after a 14 hour crew duty day. The crew entered crew rest and anticipated a departure two days later at 0830 local, giving them a total of 30 hours off duty.

The crew were advised at 0930 local the day after they arrived in Bangkok that the departure time to Canberra would be amended to depart at 2230 local that evening. The crew noted that based on the new departure time, they were already 90 minutes into their crew rest period. With this in mind, pre-flight duties were commenced (which involved catering organisation and flight planning) but the aircraft Captain advised to keep duties to the minimum necessary. Where they could, duties were delegated to aircrew back at 34 squadron. The crew continued with preflight duties until approximately 6 hours prior to duty commencement.

The crew rested for the remainder of their rest period and started duty at 2000. The crew instigated a formal rest schedule during the next sector.

Related Correspondence

ASOR 34SQN-052-2017

Unit Review

Supervisor Comments

This ASOR amplifies the time pressures and lean support system associated with delivering the VIP capability. All Crew Duty related ASOR will be entered for the purposes monitoring.

CO Comments

Hazard Reports - Full Listing

This ASOR highlights the pressure 34SQN crews are placed under to achieve the mission.

In this particular instance, the crew accepted breaking crew duty as the only acceptable solution to their problem. While this may have been the correct answer, it is concerning that the crew chose to make this decision internally. The crew duty framework is set by OC 86WG, and therefore any risk to be accepted by conducting duties outside the framework belongs to the OC.

More broadly, this ASOR is one of a number of recent crew duty ASORs. They have been triggered by a Squadron response to a GASSO audit whereby 34SQN was identified as a Squadron that has normalised the practice of breaking crew duty to achieve the mission. Moving forward, the aircrew have been asked to report what is actually happening on the line. The results are concerning.

While it is easy to point the finger at the aircrew, this oversimplifies a systemic problem; the aircrew are the tail-end of a tasking and mission support system that is failing to adequately support them.

In the short-term, all aircrew have been advised of their responsibilities to work within the 86WG framework, report problems achieving the mission, and seek approval for any crew-duty extensions or crew-rest reductions. There have been positive signs, with a significant number of ASORs coming to light as a result. To address the problem for the longer-term, three EVRs have been raised to bolster the operations support for the aircrew. If approved, this increase in staffing should enable more specialised 24/7 support to what is an important ADF capability.

Resolution

Resolution Comments

WASO 23 Nov 17: This and other crew duty-related ASORs have been entered as Events; given their similar nature, actions for these ASOR Events are being collectively addressed in 34SQN-052-2017, which has been classified as an Incident.
Recommend close.

A/WMASO 05 Dec 17: Noted, Rec close.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 16 Feb 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279220

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-061-2017

References:

Workflow Phase: Historical

Classification:	Event
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Title: Human / Other(Human) / Passenger out of seat prior to seatbelt signs extinguished

Occurrence Date Time: 29 2110 LOCAL Oct 17

Location: Sydney

Departure from Sydney International Airport

Parachute Incident Report: No

Movements Incident Report No

Physiological Incident Report: No

Telephone Notification to: **DDAAFS:** Yes **ATSB:** No

Weather:

Light Conds:

Meteorological Conds:

Environmental Facts:

Aircraft Details

s47E B737-BBJ / s47E

Last Dep Point: Sydney

Intended Land Point: Bangkok

Mission:

[illegible]

Personnel Details

AMAC / CREWATT C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No

Hazard Reports - Full Listing

On take-off from Sydney during a VIP task, the passenger in seat CA51 (mid-cabin small table) got out of their seat and moved to seat CA56 (mid-cabin main table). This occurred prior to the 5000ft double chime, which signals the cabin crew that normal duties can commence. The Cabin Manager (CM) immediately saw the passenger leave their seat, and made the following PA announcement: "Passengers are reminded to stay seated until seatbelt signs have come off". On completion of the PA, the 5000ft double chime was heard. The CM made their way to the mid-cabin, and noticed the passenger who left their seat did not have a seatbelt on. The CM instructed the passenger to put on their seatbelt, and reminded them they are required to stay seated with their seatbelt fastened until seatbelt signs have been extinguished. At the 10,000ft chime, the CM informed the 3rd pilot in the flight deck of occurrence, who informed the captain. On arrival into Bangkok a passenger left their seat in the VIP cabin. This was identified because the CM and R1 cabin crew could hear cupboards opening and closing. IAW AAP 7211.039-1CL-2 Cabin Crew Manual BBJ Section2 Chap 1 all cabin crew were still seated as the aircraft had not exited the runway, nor was at a safe taxi speed. The CM made an immediate risk assessment and used discretion in choosing not to make a PA due the status of the passengers in that cabin, and the low safety risk in that phase of the aircraft's movement. The CM informed the captain during post flight brief as crew were busy during the 1 hour tech stop.

Related Correspondence

Nil

Unit Review

Supervisor Comments

This type of Event will be tracked for any trend analysis. In a similar manner in which PED use has been tracked and had an elevated response, if this continues to occur 34SQN will elevate the response. Options include SOVIPOPS involvement to communicate the safety risk with the passengers through to amplified safety messages on the Safety DVD.

CO Comments

The safety of the passengers is 34SQN's highest priority. While every effort is made to ensure this safety, if passengers choose to ignore direction, the crew attendants must assess the resulting risk on a case by case basis. This is not an easy task, and 34SQN will continue to work with SOVIPOPS to educate government passengers accordingly.

Resolution

Resolution Comments

WASO 23 Nov 17: Rec close

A/WMASO 05 Dec 17: Noted, Rec close

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 16 Feb 18 by D/WASO on behalf of OC86WG - Ref OBJ L11279222

Hazard Reports - Full Listing

Reference Number: ASOR: 34SQN-072-2017

References:

- A. 86WG BBJ Flying Order 3-03 RNP-AR Approach Restrictions
B. ASOR 34SQN-050-2017

Workflow Phase: Historical

Classification: Event

Title: Materiel / Automatic Guidance and Flight Control / Aircraft Outside of Tolerances During RNP-AR Approach

Occurrence Date Time: 21 0903 LOCAL Nov 17

Location: Canberra

Parachute Incident Report: No

Movements Incident Report No

Physiological Incident Report: No

Telephone Notification to: **DDAAFS:** Yes **ATSB:** No

Weather: CAVOK

Light Conds: Day **Meteorological Conds:** VMC **Environmental Facts:** N/A

Aircraft Details

s47E B737-BBJ /s47E

Last Dep Point: YSSY

Intended Land Point: YSCB

Mission: Operations
CAT B VIP TASK

[illegible]

Personnel Details

AC / C-RHS / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
B737-BBJ547E

CP / D-CAPT / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
B737-BBJs47E

Hazard Reports - Full Listing

The aircraft was conducting the RNP-AR Yankee approach to runway 35 at Canberra. 86WG Flying Order 3-03 RNP(AR) Restrictions were in effect, having been issued on 1 Nov 17, due to previous occurrences of the aircraft pitching up approaching the Final Approach Fix (FAF). ASOR 34SQN-050-2017 refers.

The aircraft was conducting the approach in VMC IAW the restrictions as listed in the FO. Approaching the FAF, the aircraft levelled off and went outside vertical RNP tolerances (125ft). The aircraft continued for a visual landing.

There have been multiple instances recently of this occurrence on the BBJ. s47G are investigating. Entered for tracking purposes.

Related Correspondence

Nil

Unit Review

Supervisor Comments

Crew actions are supported. These occurrences continue to be monitored and investigated by SPA-MU and s47G on behalf of Defence. The current Flying Order is a reasonable safety measure given the frequency of these approach divergences.

CO Comments

Supervisor comments supported.

Resolution

Resolution Comments

WASO 7 Feb 18: Noted as the second instance reported by ASOR.
Rec close.

A/WMASO 13 Mar 18: Noted, rec close.

Analysis

Nil

Findings

Nil

Contributing Factors

Nil

Defences

Nil

Actions

Nil

Recommendations

Nil

Board Review

Board Review Comments

ASOR made Historical on 19 Mar 18 by D/WASO on behalf of OC86WG - Ref OBJ L11563775

Hazard Reports - Full Listing

Reference Number: OPHAZ: 34SQN-001-2017-SASOR 1

References:

A. 34SQN ASOR 004-2017

Workflow Phase: Historical

Classification: OPHAZ

Title: Materiel / Other(Materiel) / s47G OPT Output Discrepancy for Intersection ALL functionality

Occurrence Date Time: 24 1020 LOCAL Feb 17

Location: Overseas
AYPY - Port Moresby

Parachute Incident Report: No

Movements Incident Report: No

Physiological Incident Report: No

Telephone Notification to: DDAAFS: No ATSB: No

Weather:

Light Conds: N/A Meteorological Conds: N/A Environmental Facts: N/A

Aircraft Details

s47E B737-BBJ s47E

Last Dep Point:

Intended Land Point:

Mission:

s47E

Personnel Details

AC / C / Trade Cat:Aircrew / AuthOff: No / AC563 Report: No
B737-BBJ s47E

During a recent task, BBJ aircrew noted a discrepancy with s47G OPT takeoff performance output whilst evaluating takeoff performance intersection departure options using the INTX ALL functionality available within the s47G Onboard Performance Tool (OPT) on the EFB Ipads.

When the intersection departure was selected in OPT (by swiping sideways on the desired takeoff data set after calculating with INTX ALL), the final authoritative performance output PDF sent to Goodreader contained conflicting takeoff data. The TOLD BUG card showed a takeoff performance calculation based on full length and flap 1, but the first page of the OPT output showed the selected intersection takeoff performance with flap 10 - (as was the crews intention when performing the calculation.) The V Speeds and thrust settings were also significantly different and have the potential to cause a safety risk to flight in that V speeds and thrust settings could be insufficient to perform a safe takeoff.

Hazard Reports - Full Listing

Investigation

Investigation Status Completed

Analysis

001 34Sqn

EFB iPads

34SQN BBJ pilots each utilise an approved iPad for their Electronic Flight Bag, with content managed by 84 WG. Cabin Managers also carry a spare iPad to the aircraft to use for weight and balance calculations.

84WG promulgates an approved list of status for each safety critical application on the EFBA Software Update Log.pdf which appears on the iPads inside the Goodreader application when the iPad is synced using Wifi.

Crews are trained how to check and update to the approved version of each application. Further, the iPads are setup to ensure that auto updating of applications is not selected in the iPad settings.

002 34Sqn

s47G OPT Application

The s47G Onboard Performance Tool (OPT) application is an OEM produced application certified for use on Electronic Flight Bags for takeoff and landing calculations both pre-flight and during flight.

Prior to Feb 17, the OPT application was run on a laptop in the Communications Centre on the BBJ. 34SQN Flying Order 07-13 OPT ON IPAD WEIGHT AND BALANCE PROCEDURES published on 02 Feb 17 now requires crews to use their iPad for all calculations, vice the laptop.

The takeoff performance section of the OPT application is used on the iPads for all takeoff calculations, and produces an output that includes V speeds, flap setting, thrust settings, trim setting and other pertinent information for takeoff.

003 34Sqn

Intersection ALL Output v4.26

The OPT pre-flight procedure requires the crew to fill out the weight and balance, then put in the chosen runway of departure and ambient airfield conditions. A calculation is then made using the OPT app which produces settings for takeoff. The BBJ uses a fixed and assumed temperature derate.

Once the calculation has been made and cross checked by both pilots, the crew sends this to a PDF output. The PDF output has multiple pages; the first lists the runway conditions, intersection, V speeds in small font and thrust setting, whilst a later page has a TOLD card style output that lists the same settings plus Centre of Gravity and trim settings. The PDF output is used by the Pilot Monitoring (PM) to input the data into the Flight Management System (FMS) for takeoff. This information is critical to takeoff performance because it is entered in the FMS pages which then determine the aircraft thrust setting for takeoff (through a link to the autothrottle), as well as the flap setting (set by the pilots from the FMS page once entered).

In the case in question, whilst using OPT v4.26, the setting used for INTX (Intersection) was ALL, which is a setting that returns performance data for multiple intersections from the start of the runway. In this instance, the front page listed data that was different to the TOLD card page, even though these are normally identical. Investigation has revealed that the front page V speeds and thrust setting were for an intersection further down the runway (flap 10, higher thrust setting) whilst the TOLD card page was from the full length of the runway (flap 1, lower thrust setting).

004 34Sqn

Safety Alert Dissemination

The method of dissemination of the information to BBJ crew after the resultant incident was via an email on DRN from the QFI entitled SAFETY ALERT followed up by text messages to BBJ pilots. Whilst this was an effective method of sending the message to crews (with one crew overseas on task), a more prudent process may have been to put out a Flying Order which would have been read by crews on their EFB iPads prior to flight.

Hazard Reports - Full Listing

- 005 34Sqn
Existing iPad OPT Flying Order
34SQN FO 07-13 was produced to allow use of OPT on iPad without requiring the use of the onboard laptop and printer in the COMMS centre, as had previously been the case. This allows greater flexibility, removes the reliance on the printer (which had historically been problematic with print failures) and provides a more robust and streamlined process for performance calculations.

The flying order required cross checking of the OPT output pdf versus the raw data calculation on the OPT Takeoff page, and then an independent check once again by the other pilot. This cross checking was the reason that this error was picked up.

- 006 34Sqn
New output format
Since the output error was identified, the output format on the output pdf has been changed by Tech section to ensure that the TOLD card output appears on the same page of the output pdf as the smaller type face figures. This ensures that an easier cross check can occur as the data to be cross checked all appears on the same page.

Findings

- 001 **iPad EFB**
BBJ crews are authorised to use the s47G OPT iPad application as a primary tool for takeoff performance onboard. This determines performance settings for takeoff including thrust, flap and trim settings.
- 002 **Laptop to iPad approval**
34SQN Flying Order 07-13 was published on 02 Feb 17, requiring crews to use the ipads for performance calculations vice the laptop onboard the aircraft.
- 003 **OPT Output error**
During calculations for departure using the ALL intersections function, the crew noticed that the iPad s47G OPT app (version 4.26) output front page settings differed from the output TOLD card page settings on the same pdf document. That is, one page listed full length settings whilst the other page listed an intersection departure calculation which had significantly different takeoff settings for thrust, flap.
- 004 **Crosscheck**
The crew picked up the error during cross checking of the information from the main OPT takeoff calculation page, pdf output front page and the pdf output TOLD card page.
- 005 **Dissemination**
Once identified by the crew, the 34SQN QFI disseminated the information to not use the ALL intersection function for takeoff performance until the output issue had been rectified. A Flying Order revision was not issued.
- 006 **OPT version 4.27**
A few days after this issue was identified by a BBJ crew on v4.26 of the OPT app, 84WG approved the use of v4.27. The issue could not be replicated on this new software version, even using identical performance parameters.
- 007 **s47G Advice**
s47G has provided advice that they knew that there was an issue with v4.26 OPT, hence why v4.27 was released. 4.27 however was not approved for use by 84WG for a period of time, hence 4.26 was still being used by BBJ crews in the interim period.

Contributing Factors

Preconditions for Unsafe Acts / Substandard Conditions / Equipment / Unreliable/Faulty / 1

Hazard Reports - Full Listing

Defences

Detection - How was the problem revealed? / Aircrew

What, if anything, limited the consequences of the occurrence? / Procedures / Standing Instructions

What, if anything, limited the consequences of the occurrence? / Procedures / Operator Reaction

What, if anything, limited the consequences of the occurrence? / Philosophy / Crew Resource Management

What, if anything, limited the consequences of the occurrence? / Philosophy / Training

Risk Management

RM Strategies: RM strategies for software are prevalent throughout the 84WG and wider RAAF Electronic Flight Bag program. Whilst not specifically addressed in BBJ Standing Instructions, output error of flight critical software is risk managed through training, cross check philosophy and crew resource management.

RM Effective: Yes

RM Narrative: Software output anomalies of EFB flight applications will be considered to be included in the 34SQN CRP (under development). This has been captured as an action item in 34SQN Sharepoint - Aviation Safety - Item 362-CRP-MRP Review.

Hazard Reports - Full Listing

Actions

001 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 10-Mar-2017
Assigned Date: 02-Mar-2017 **Due By Date:** 17-Mar-2017
Title: OEM Advice and Software verification
Action Details: 34SQN Tech section to advise s47G of the identified issue with version 4.26 of OPT and request verification that the software version 4.27 has rectified the issue.
Response: s47G were contacted and advised that Version 4.26 of s47G OPT had a known issue with the functionality of the INTX ALL setting, hence version 4.27 had been released to fix the issue. 4.27 however was not approved by 84WG for a period of time, hence the incident identified in this OPHAZ occurred.

s47G stated in writing to 34SQN Tech section that: there was a bug with OPT v4.26 and this issue was fixed in OPT version 4.27. You can reference (this issue in) CR33559 in the release note for OPT iPad v4.27. s47G recommends you upgrade to OPTv4.27.

002 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 26-Mar-2017
Assigned Date: 08-Mar-2017 **Due By Date:** 28-Mar-2017
Title: BBJ OPT Flying Order
Action Details: BBJOPSFLTCDR to review Flying Order 07-13 in light of this incident to determine whether restrictions are required for the use of the INTX ALL functionality, noting that OPT version 4.27 appears to have rectified the issue.
Response: 34SQN FO 07-13 was reviewed in response to this OPHAZ, and was found to be acceptable. Para 4 states, "The PM will then check the OPT inputs on the PF's iPad and cross reference the good reader PDF output". This statement coupled with the s47G OPT training course that is given to each pilot ensures that errors such as the one described in this OPHAZ is identified before it becomes an incident.

003 * Completed * **Agency:** 34Sqn
Actionee: s47F **Completed Date:** 17-Mar-2017
Assigned Date: 10-Mar-2017 **Due By Date:** 28-Mar-2017
Title: Standards OPT Review
Action Details: Standards section to review INTX ALL functionality of OPT v4.27 for use
Response: s47G has reported that this issue has been rectified in OPT version 4.27. Operating IAW 34SQN FO 07-13 by comparing the OPT computed performance to the PDF output was successful in catching this error. There is no required change to procedures, nor requirement to place limitations on the use of the INTX ALL function (for v4.27)

Hazard Reports - Full Listing

Recommendations

001 * Accepted * * Completed *

Agency: 84WG

Name: s47F

Recommendation Date: 10-Mar-2017

Title: 84WG App Approval process

Recommendation: Recommend that 84WG review process to review applications for use on the EFB. v4.26 had known issues from the OEM (which may not have been passed on to operators) so they released v4.27 to rectify this. However, v4.27 was not approved for use for some time, hence the incident in question occurred.

Response: 84WG process for application update review has been reviewed and is determined as being appropriate. Sufficient robustness testing must be performed to ensure stability across approved applications and devices.

Damage Details

Nil

Component Changes

Nil

Related Correspondence

Nil

Unit Review

Supervisor Comments

I support the Investigator's comments. I also commend the proactiveness of our Squadron members, rapidly identifying issues and getting the message out, regardless of which medium used; though I agree that any future iPad application discrepancies should be disseminated through Flying Order rather than just an email. As a consequence of this OPHAZ, a minor issue was recently identified with OPT 4.27, and the information was disseminated through Flying Order successfully.

CO Comments

This anomaly with the OPT software was picked up through the mandated cross-check procedure prior to departure. Following the discovery, I am satisfied with the information dissemination to all BBJ pilots. The subsequent ASOR investigation process has been thorough.

I concur that 84WG processes for software updates should be reviewed, with the primary focus being on improving speed. Approving software updates are a difficult balancing act between timeliness and accuracy checking, however in this case an automated update to the new version would likely have prevented the occurrence. There is no easy solution, as automated updates may also cause ASORs.

Board Review

Board Review Comments

11SEP17. TD. ASOR reviewed and closed by OC84WG. (J4810467).



Aviation Safety Reporting
Defence Aviation Safety Authority
Defence Flight Safety Bureau

ASOR Word Search Report

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Parameters

Occurred Date Range: Between 01/07/2016 and 30/06/2017

Aviation Unit: Air Combat Group, Air Mobility Group,
Surveillance & Response Group

Classification: Accident, Event, Incident, OPHAZ,
Serious Incident

Retrieved ASORS: 18

Search terms: 1. VIP
2. V I P
3. diplomat
4. envoy
5.

Run by: s22

Run at: 29/11/2018 : 11:37:37 AM

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s22

Row Number	ASOR Occurred Date	ASOR Number	Aviation Unit L2	Aviation Unit L4	Aviation Unit L5	Aviation Unit	Aircraft	Location	Keyword L1	Keyword L2	ASOR Title	ASOR Narrative	VIP PAX
	09/09/2016	ASOR: 3 SQN-035-2016	Air Force	Air Mobility Group	86 Wing	3 SQN	B737-BBJ	Tamworth Airport YSTW NSW (G)	Human	Failure to Complete Checklist	Before Takeoff Checklist not completed	7/6 was conducting a four sector day/night VIP task that involved a 13 hour crew duty day. During the day, the passenger delayed the third sector by one hour, which resulted in the crew extending to a maximum crew duty day of 1 hours. After completing the final VIP sector the crew departed Tamworth (YSTW) at 2230 local time for return to Canberra. Following departure and during the conduct of the after takeoff checklist, the pilot monitoring (PM) advised that the Before Takeoff Checklist had not been completed. Although the checklist was not completed, the crew had followed all other SOPs and the aircraft had been configured correctly for departure. The sortie continued to YSCB without further incident.	The Hon B Joyce MP
322													
10	2 /10/2016	ASOR: 3 SQN-0 3-2016	Air Force	Air Mobility Group	86 Wing	3 SQN	Challenger 60	Longreach Airport YLRE QLD (G)	Environment	Birdstrike - No Damage	Birdstrike on takeoff	The aircraft departed YLRE on a VIP mission. Approaching rotate speed during the takeoff, both pilots observed a small bird at attempting to evade the path of the aircraft. As the aircraft rotated, the bird was observed to pass under the nose of the aircraft, and an impact noise was heard by both pilots. Both pilots interpreted the noise/impact to be in the vicinity of the forward fuselage. Departure was continued with no secondary indications, and the VIP sector continued successfully to destination. On arrival at destination, both pilots and the 7/6 LAME independently conducted inspections but no evidence of impact was found.	Senator The Hon M Canavan, The Hon D Chester, Mr D Littleproud MP
11	30/10/2016	ASOR: 3 SQN-0 5-2016	Air Force	Air Mobility Group	86 Wing	3 SQN	Challenger 60	Darwin Airport YPDN NT (G)	Material	Auxiliary Power Unit	APU fuel malfunction during shutdown	The aircraft departed Darwin for Adelaide with a VIP onboard. During APU shutdown (as the APU PWR FUEL switch was selected OFF), the APU SOV and APU NEG-G SOV EICAS cautions were annunciated. Crew consulted the abnormal checklists for both malfunctions. One of the checklists directs that the aircraft should be landed at nearest suitable airport. Before commencing returning to Darwin, the crew agreed that cycling the APU PWR FUEL switch back to the ON position for several seconds then OFF was a low risk option in an attempt to clear the messages. The APU PWR FUEL switch was cycled as discussed and the messages were cleared. After consultation with Duty Exec and 7/6 duty LAME, the aircraft continued to destination without further issue.	Senator The Hon N Scullion
12	03/11/2016	ASOR: 3 SQN-0 7-2016	Air Force	Air Mobility Group	86 Wing	3 SQN	Challenger 60	Other (G)	Material	Displays	EICAS Display 2 (ED2) Screen Failure	During the cruise on a VIP sector, the crew noticed the ED2 screen had gone blank. The crew carried out actions of the EICAS Secondary Display Failure (ABNORM 15-2) check as from the Quick Reference Handbook - RAAF Volume 2 (PSP No. 60 - 15-RAAF) and regained the information displayed on ED2 on the co-pilot's Multi Function Display (MFD) screen. The crew went through all considerations and elected to continue to the destination without further event. Maintenance records show the following actions were performed: Flight Crew applied MEL 31-61-1, which is a crew action and requires switching the ED2 data to the MFD. On return to CBR that day, ED2 was replaced and the A/C then Returned to Service. The display was originally fitted in Nov 2011, and had accrued 1283.6 hr & 827 cycles prior to failing.	Senator The Hon F Nash
15	26/0 /2017	ASOR: 3 SQN-010-2017	Air Force	Air Mobility Group	86 Wing	3 SQN	Challenger 60	Brisbane Airport QLD (G)	Material	Flight Controls	Asymmetric flight spoiler extension	The aircraft had just left FL 000 on descent into YBBN on a VIP mission. Due to proximity of overspeed cues and slight turbulence, the PF (aircraft captain) deployed flight spoiler to control airspeed. As spoiler was deployed, a signal cant rol to the right occurred (approx 20 degrees angle of bank achieved before autopilot counteracted with opposite aileron). The flight spoiler never was instinctively retracted by the PF. After discussion on and in order to confirm controllability and cause of the issue, the flight spoiler was once again deployed slightly. Crew noted the left flight spoiler panel did not extend, whilst the right panel extended, again with some roll tendency. Flight spoilers were retracted and the abnormal checklist Flight Spoiler Asymmetric Extension was consulted (directing that flight spoiler not be used again in flight). Aircraft landed via ILS approach to RW01 without further incident.	The Hon B Joyce MP
16	01/05/2017	ASOR: RIC-013-2017	Air Force	Surveillance & Response Group	Wing	53SQN Richmond Flight	Challenger 60	Richmond Airport YSRI VIC (G)	Material	Electrical System	Failure to provide 1 second airfield lighting backup during reduced runway visibility	MATS 12.13.1.1.2 requires the airfield lighting system to have a 1 second mains power back up when an aircraft is taking off in runway visibility (RV) conditions of 800 m or less. Backup power is provided by a standby generator that in the event of normal power failure takes 7 seconds to start. To provide the reduced 1 sec time requirement the generator pre-started when the conditions in 12.13.1.1.2 require it. A previous lightning strike during the period of operational standby caused Richmond lost the capability of starting the generator remotely. Hence pre-starting the generator in reduced RV conditions needs to be done manually. The generator control panel to manually start the generator is located in the locked lighting control room. As this building and the equipment inside are not within 53SQN training or experience 53SQN currently do not hold a key. To start the generator manually the Core electrical contractor are required to be onsite. Until the situation occurred JBAC staff had assumed a manual start was within the scope of a relatively routine task for the maintenance staff. Consequently in contradistinction to the MATS Richmond had a late notice VIP aircraft departed early 01 May 17 in RV of less than 800 m without the lighting backup generator on line. Subsequent work is planned for May to repair the remote start system and so to avert future occurrences. In the interim heightened awareness of the lead time required has led to additional risk mitigation of earlier generator starts being planned.	Senator The Hon M Payne
18	25/05/2017	ASOR: 3 SQN-011-2017	Air Force	Air Mobility Group	86 Wing	3 SQN	B737-BBJ	Canberra Airport YSCB ACT (G)	Human	Aircraft damaged by ground support equipment	Aircraft damaged by external stairs	The aircraft was awaiting arrival of VIP passengers or departure. Due to the number of passengers, two sets of stairs were requested to be used, with one located at the front door and one at the rear door on the left hand side of the aircraft. The co-pilot was conducting pre-flight checks in the flight deck. He noticed a signal controller movement of the aircraft, commencing with the Captain that it felt much like a very strong gust of wind. The CAPT confirmed that stairs were approaching the L2 door and asked both the engineer and rear galley CREWATT to check if any GSE had hit the aircraft as the wind was light and variable at the time. The engineers determined that the rear stairs had struck the aircraft fuselage around the rear left door area whilst being moved into place. After a technical log entry and subsequent engineering inspection it was determined that the damage was superficial. The pilots conducted a final visual inspection on and the task continued as planned.	The Hon J Bishop MP, The Hon M Turnbull MP

TELEPHONE REPORT

Occurrence type	AVIA ION	X	WHS	
Unit(s) involved in occurrence	3 SQN			
Aircraft involved (pilot(s) & cabin crew) - specify vehicle registration	7/6 BBJ			
Date/Time of occurrence	20OCT18 1830			Local
Location of occurrence	APP to YSSY			Zu u

Description of occurrence	During a STAR, TRKG 155M on descent FM A060 to A0 0 into YSSY the ac t experienced mod turb, most likely from wake turbulence and an uncommanded roll to 30DEG AOB. The AP set corrected to level then 15 seconds later the ac t rolled to -5DEG AOB (again resulting from mod turb) and the AC disconnected the AP and manually corrected the roll. The min sep from preceding ac t was 8nm. Just prior to the event ATC had requested the ac t reduce speed for separation however, at the time of the event min sep had been maintained. W/V at the time was a direct tailwind of 18KTS.		
Weather (18 Oct 2016 1200)	Clear of cloud during descent and W/V was direct tailwind of 335 /18KTS.		
Flight details	Departure point: YSCB	Intended landing point: YSSY	
Aircraft damage	NIL		
POB numbers (per aircraft involved)	Crew: 6	Passengers: 62 (included 1 x VIP plus staff)	
Aviation (flight crew, cabin crew or other crew - specify if applicable)	Crew: 1 x minor injury		

TELEPHONE REPORT

Occurrence type (A 001)	AVIA ION	X	WHS	
Unit(s) involved in occurrence	3 Squadron			
Aircraft involved (type(s) / tail number(s) - "language note" if applicable) dangerous cargo?	Challenger 7/E [REDACTED]			
Date/time of occurrence	21 15K Oct 16		Local 20 15Z Oct 16	Zulu 20 15Z Oct 16
Location of occurrence	Longreach Airport RWY 0			
Description of occurrence	The aircraft departed YLRE on a VIP mission. As the aircraft rotated, a bird was observed to pass under the nose of the aircraft, and an impact noise was heard by both pilots in the vicinity of the forward fuselage. Departure was continued with no secondary indications, and the VIP sector continued successfully to destination. On arrival at destination, on both pilots and the 7/E LAME independently conducted inspections but no evidence of impact was found.			
Weather (18 Oct 2016 0700)	N/A			
Flight details	Departure point: Longreach (YLRE)		Intended landing point: Brisbane (YBBN)	
Aircraft damage	N/A			
POB numbers (per aircraft involved)	Crew: 1		Passengers: 7	
Aviation (flight crew, cabin crew or other crew - specify if applicable)	Crew: N/A Passengers: N/A VIP: N/A			

Senator The Hon M Canavan The Hon D Chester MP Mr D Littleproud MP

TELEPHONE REPORT

Occurrence type (A 001)	AVIA ION	X	WHS	
Unit(s) involved in occurrence	3 Squadron			
Aircraft involved (type(s) / tail number(s) - "language note" if applicable) dangerous cargo?	Challenger 60 A0200 1 - "explosive ordnance" [REDACTED] S 7/E			
Date/time of occurrence	30 0615K Oct 16		Local 29 20 5Z Oct 16	Zulu 29 20 5Z Oct 16
Location of occurrence	Departing Darwin, upwind of RWY 11.			
Description of occurrence	The aircraft departed Darwin for Adelaide with a VIP onboard. During APU shutdown (as the APU PWR FUEL switch was selected OFF), the APU SOV and APU NEG-G SOV EICAS cautions were annunciated. Crew consulted the abnormal checklists for both malfunctions. One of the checklists directs that the aircraft should be landed at nearest suitable airport. Before committing to returning to Darwin, the crew agreed that cycling the APU PWR FUEL switch back to the ON position for several seconds then OFF was a low risk option in an attempt to clear the messages. The APU PWR FUEL switch was cycled as discussed and the messages were cleared. After consultation with Duty Exec and [REDACTED] duty LAME, the aircraft continued to destination without further issue.			
Weather (18 Oct 2016 0700)	N/A			
Flight details	Departure point: Darwin (YPDN)		Intended landing point: Adelaide (YPAD)	
Aircraft damage	N/A			
POB numbers (per aircraft involved)	Crew: 1		Passengers: 2	

Senator The Hon N Scullion

TELEPHONE REPORT

Occurrence type (A 001)	AVIA ION	X	WHS	
Unit(s) involved in occurrence	3 SQN			
Aircraft involved (type(s) / tail number(s) - "language note" if applicable) dangerous cargo?	Challenger 60 7/E [REDACTED]			
Date/time of occurrence	0316 01KNov16		Local 05 0Z	Zu 05 0Z
Location of occurrence	30NM North of Tamworth (YSTW)			
Description of occurrence	During the cruise on a VIP sector, the crew noticed the ED2 screen had gone blank. The crew carried out actions of the EICAS Secondary Display Failure checklist and regained the information displayed on ED2 on the co-pilot's Multi Function Display (MFD) screen. The crew went through all consideration and elected to continue to the destination on without further event.			
Weather (18 Oct 2016 1200)	N/A			
Flight details	Departure point: Rockhampton (YBRK)		Intended landing point: Richmond (YSR)	
Aircraft damage	N/A			
POB numbers (per aircraft involved)	Crew: 3	Passengers: 8		
Aviation (flight crew, cabin crew or other crew - specify if applicable)	Crew: Nil Passengers: Nil VIP: Nil			
Other (passengers, support crew, etc. - specify if applicable)	N/A			

Senator The Hon M Payne

TELEPHONE REPORT

Occurrence type (A 001)	AVIA ION	X	WHS	
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Un t(s) involved in occurrence	3 SQN		
Aircraft involved (operator, aircraft number, -/express use, -/passenger, dangerous cargo?)	7-2		
Date/time of occurrence	17 Nov 16, 2310L	Local	Zu u
Location of occurrence	Acapulco Airport (MMAA)		
Description of occurrence	On approach into MMAA, bird impacted radome. Aircraft inspected w/tn no damage found.		
Weather (if known, if not, N ght VMC)			
Flight details	Departure point: Honolulu	Intended landing point: Acapulco	
Aircraft damage	N I		
POB numbers (per aircraft involved)	Crew: 7	Passengers: 15	
Aviation (if not, not an g u, if not, not a g u)	Crew: Nil		
	Passengers: N I		
Other (passengers, injuries, or damages)	N I		

The Hon M Turnbull MP

TELEPHONE REPORT				
Occurrence type (if not, not an g u)	AVIA ION	X	WHS	
Un t(s) involved in occurrence	3 SQN			
Aircraft involved (operator, aircraft number, -/express use, -/passenger, dangerous cargo?)	Envoy - Ca is gn not avai able due to relayed notification through third party			
Date/time of occurrence	081700KJUN17	Local	Zu u	
Location of occurrence	Hobart CTR			
Description of occurrence	Generator failure on approach in Hobart Airport. Aircraft landed w/tnout further inc dent IAW checklist			
Weather (if known, if not, CAVOK)				
Flight details	Departure point: Me bourne		Intended landing point: Hobart	
Aircraft damage	Nil.			
POB numbers (per aircraft involved)	Crew: 3	Passengers: 4 including 1 VIP		
Aviation (if not, not an g u, if not, not a g u)	Crew: nil			
	Passengers: nil			
Other (passengers, injuries, or damages)	N I			

The Hon B Joyce MP



Aviation Safety Reporting
Defence Aviation Safety Authority
Defence Flight Safety Bureau

ASOR Word Search Report

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Parameters

Occurred Date Range: Between 01/01/2017 and 28/02/2018

Aviation Unit: All

Classification: Accident, Event, Incident, OPHAZ,
Serious Incident

Retrieved ASORS: 48

Search terms: 1. VIP
2.
3.
4.
5.

Run by: s22

Run at: 03/12/2018 : 2:55:26 PM

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s22

[illegible]

s22

From: Smith, Andrew S22

Sent: Friday, 1 February 2019 07:34

To: SPA Request S22

Cc: Cameron, Cos MR S22; Alberts, Richard GPCAPT S22;
Lauman, Fiona S22; Cameron, Cos MR S22; Egan,
Scott WGCDR 1 S22; Procter, Robert S22

Subject: RE: FOI Request query [SEC=UNCLASSIFIED]

Importance: High

UNCLASSIFIED

s22

s22



- ASOR: 34SQN-026-2017-SASOR 1;
- 1800 14 Jul 17 (Singapore time);
- s47E B737-BBJ s47E ;
- WSSS – YSSY;
- Operations, CAT B VIP Mission;
- Environment/Operational Hazard/Crew Extended Past Crew Duty Limit.
- VIP: PM M. Turnbull


s22



Regards,

Andy Smith

Case Manager
Freedom of Information
Information Management and Access
Governance and Reform Division

Department of Defence
CP1-06-005
PO Box 7910 Canberra ACT 2610


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