

Figure 5: Sorties conducted by the NHP with a QHI/TC since leaving OCF

Date	QHI / TC	Type of Flight	Duration	Formally Assessed with report	Comment
Airborne Flights					
17/2/12	TC	MRX Transit	5:00	N	Day
26/3/12	TC / 27 C Flt Comd	El Centro Area Familiarisation	1:00 P2	N	Day Ex VM12 Did not handle the aircraft
29/3/12	TC	DLs and USL	1:30 P1 1:45 P2	Y – Graded B	Day Ex VM12
3/4/12	TC	Night DLs and ULs	2:00 P1 2:00 P2	Y – Graded B+	Night Ex VM12
Simulator Flights					
5/1/12	OC 27 Sqn (prev QHI)	IF / GF	2:00	N	
10/1/12	TC / Flt Comd	Squadron Acceptance Flight inc Formation UK Ops	2:00	Y – Graded B+	Live aircraft not available
21/2/12	TC	EW	2:00	Y – Graded B+	
1/3/12	TC	Winter Basic Mountain package	2:00	N	
1/3/12	TC	Tactical / GH	2:00	N	

Figure 6 – Flying Hours flown by the HP in previous 6 months

	Total	P1	P2	P1	P2	Capt	Simulator	Number of Sorties	LCR Crew only Aircraft	
		Day		Night					Sorties	Time
November	2:20	2:20	0	0	0	0	0	1	0	0
December	8:50	6:35	0	2:15	0	4:35	0	3	2	6:15
January	8:45	6:25	0	2:20	0	0	14:00	5	3 (+1 sorties with – CH LCR / previous Puma QHI)	6:30 (1:30)
February	13:30	8:10	4:30	0:50	0	0:50	8:00	8	3	6:00
March	5:50	2:30	1:45	1:35	0	1:00	2:00	4	2	1:35
April (to 7 Apr)	7:05	3:05	0	2:00	2:00	0	0	3	2	3:05
Total	46:20	29:05	6:15	9:00	2:00	6:25	24:00	24	12	23:25

Figure 7 - Flying Hours flown by the NHP in previous 6 months

	Total	P1	P2	Dual	P1	P2	Capt	Sim	Number of Sorties	LCR Crew only Aircraft	
		Day			Night					Sorties	Time
November	9:20	0	0	9:20	0	0	0	0	6	0	0
December	4:30	2:20	0	0	2:10	0	0	0	2	2	4:30
January	6:40	4:20	0	0	2:20	0	3:20	10:00	4	1 (+2 sorties with – CH LCR / previous Puma QHI)	3:20 (2:20)
February	14:15	13:25	0	0	0:50	0	2:25	14:00	6	3	3:20
March	25:10	17:05	4:15	0	3:50	0	0:35	4:00	10	4	7:30
April (to 7 Apr)	5:35	1:35	0	0	2:00	2:00	0:50	0	3	1	0:50
Total	65:30	38:45	4:15	9:20	11:10	2:00	7:10	28:00	31	11	19:30

Figure 8 – Flying Hours flown by the Acmn 1 in previous 6 months

	Total	Day	Night	Sim
November	8:20	7:20	1:00	4:00
December	17:35	8:35	9:00	0
January	6:05	4:05	2:00	0
February	15:50	10:20	5:30	4:00
March	22:05	17:50	4:15	0
April (up to 7 Apr, not inc crash)	9:10	3:10	6:10	0
Total	79:05	51:20	27:55	8:00

Figure 9 - Flying Hours flown by the Acmn 2 in previous 6 months

	Total	Day	Night	Sim
November	4:20	2:05	2:15	2:00
December	10:20	7:05	3:15	2:00
January	11:10	4:50	6:20	0
February	24:30	14:30	10:00	2:00
March	20:45	14:40	6:05	0
April (up to 7 Apr, not inc crash)	12:05	0	12:05	0
Total	83:10	43:10	40:00	6:00

Figure 10 – PB5 Landing Site in May 2011

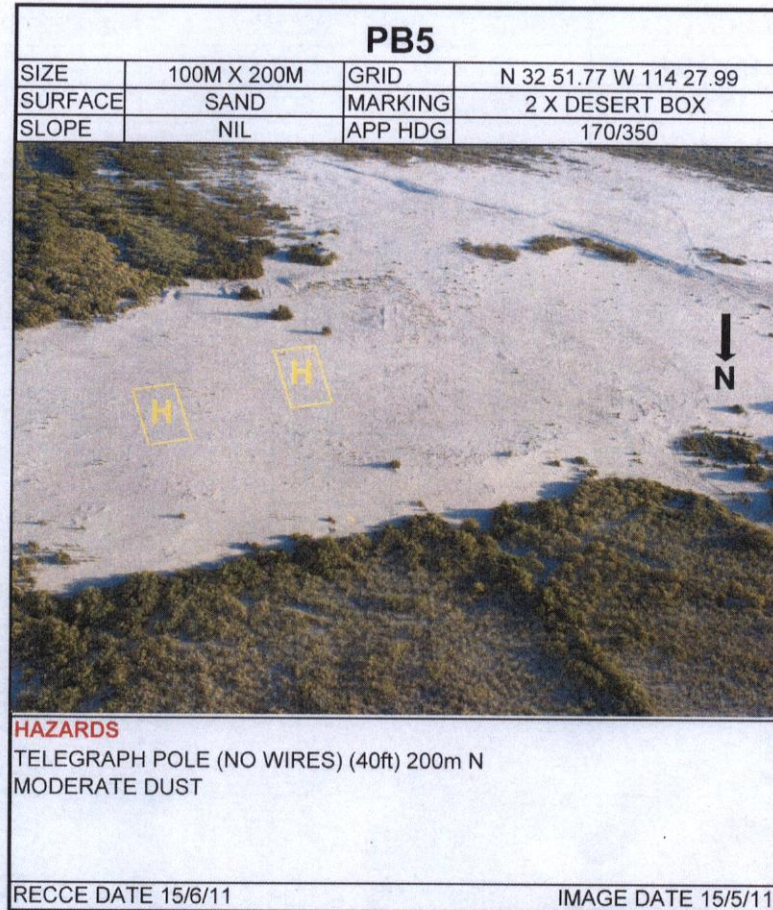
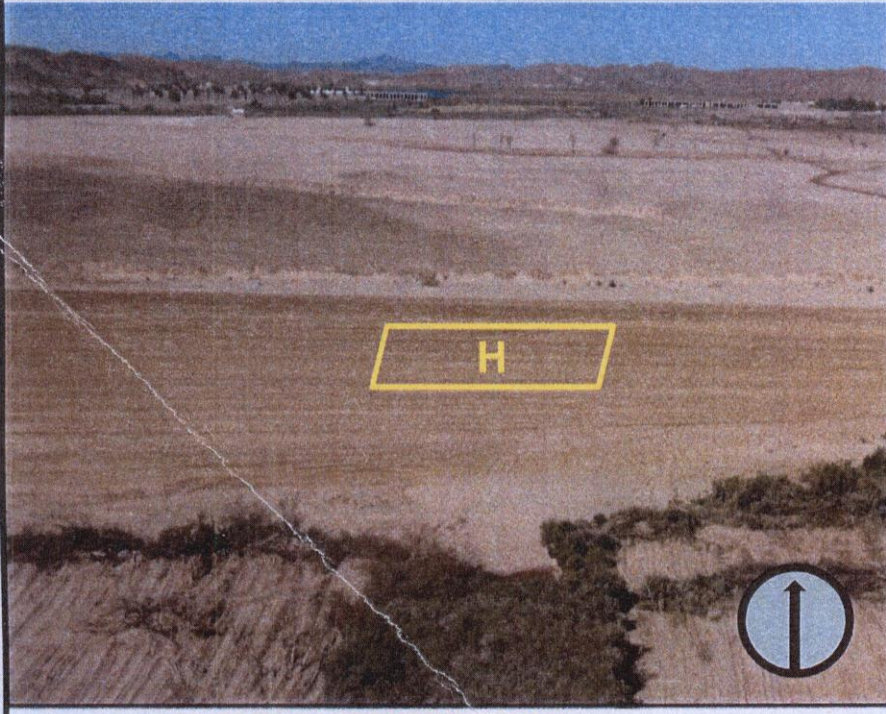


Figure 11 – PB5 Landing Site in Mar 2012

PB5 (PB5)			
LOCATION	11S QS 370 389	32° 51.77 ' N	114° 27.99 ' W
LDG DIR	170 / 350	MAP SHEET	-
SIZE	100M X 200M	SURFACE	SAND
ELEVATION	-	LIGHTING	IR DESERT BOX
SLOPE	NIL	CF	NES(S)



HAZARDS: TELEGRAPH POLE (40') 200M N.

REMARKS: CAUTION: RANGE 1M NORTH. SLIGHTLY RUTTED FIELD WITH CRUST ON TOP. DUSTY AND SOFT.

EXERCISE // SECRET

INFO 3 MAR 12 IMAGERY 3 MAR 12

Figure 12 - Qualifications of 27 C Flt Training Captain

Qualification of TC	Date Achieved
CR	5 May 10
EQ	19 Oct 09 / 12 Jun 11
Flight Authorisers Course	8 Jun 10
Aircrew Instructors Course (inc Defence Training the Trainer, Defence Instructional Techniques and Care of Trainees)	2 Dec 11
Human Factors Training	18 Nov 11
Training Captain (Day)	10 Feb 12
Training Captain (Night)	18 Feb 12
STANEVAL Check	23 Nov 09 – Out of Date

Figure 13 – Number of Chinook Aircrew failing to fly 45 hours in the per quarter prior to deploying to OP HERRICK⁵⁷

	18B Flight (Deployed Mar 12)	27C Flight (Deployed Jun 12)
Total no. of pilots	17	15 + 4 OP LANSBURY
N ^o pilots achieved less than 45 hrs in previous quarter	14	8 + 1 OP LANSBURY (Includes HP/NHP from ZA671 accident)
N ^o pilots achieved less than 30 hrs in previous quarter	1	0
N ^o of Crewman	12	12
N ^o Crewman achieved less than 45 hrs in previous quarter	4	0

⁵⁷ In the pre-deployment quarter specifically, the Panel acknowledges that additional 'top up' hours may have been flown after CI14 compilation and before actual deployment on operations.

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Figure 14 – Examples of JHC PAAFU open recommendation that could potentially have prevented accident Chinook HC Mk2 ZA671 on 7 Apr 12.

Date of Incident	Aircraft	Accident / Incident	Recommendation	Notes
9 Nov 09	Merlin Mk3 ZA133	Service Inquiry - Ac damaged during dust landing on Ex MV	All SH aircrew are reminded of the SOP for a safe overshoot, emphasising that once a decision to overshoot has been made the procedure should be continued until the aircraft is in a safe flight configuration.	
			Authorisers and supervisors are reminded to ensure consideration is given to the expected/required cockpit gradient during the programming of crews	
			There is a review of the use of Training Captains for high-end skill training such as night dust landings.	
			All personnel are to be reminded that an 'operational' mentality should be tempered with the realities of a peace-time training exercise and that safety is paramount.	
			OC SH STANEVAL is to review the training of TCs in order to ensure that they are sufficiently trained and utilised correctly.	
			JHC SO1 Safety is to include CRM, particularly the ability of aircrew to speak up in a timely manner, as a topic for discussion at the next JHC Flight Safety Forum.	
			SO1 Safety is to review the guidance in the JHC FOB regarding the consideration of crew composition and cockpit gradient to ascertain if a change in policy is required.	
30 Nov 07	Chinook ZA720	RAF F765B Unit Inquiry - Heavy Landing Op HERRICK	The ad hoc 'Desert Box' landing aid and LS marking scheme should be formalised and should be included in ATP 49.	
19 Aug 09	Chinook ZA709	Service Inquiry - Forced landing following EA	A review of the JHC J7/CI/04 is completed to eradicate potential for confusion, duplication and misinterpretation.	
11 Jan 10	Chinook ZA713	RAF F765B Unit Inquiry - Ac clipped tree on	All crews are reminded of the balance required to conduct safe aviation against the operational risk and mission accomplishment.	

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		approach to FOB causing damage to disc/blades (Ops)		
30 Aug 09	Chinook ZA 673	Service Inquiry – Heavy Landing	Photographic imagery used in Landing Site (LS) analysis should be taken from a minimum of 2 directions to provide greater perspective.	
			The Panel recommends that Chinook SOP 21 is re-written to remove all ambiguity and contradictions.	
			The method of teaching non-handling pilot duties should be investigated to ensure that the approaches are correct and acceptable.	
1 Jul 10	Chinook ZA707	Service Inquiry - Excessive rate of descent and forward speed at the point of touchdown	A review is to be carried out of the tour length for Chinook crews, with a view to improving the quality of PDT and minimising the periods of inexperienced crews operating in theatre. This action is dependant on the delivery of Chinook hours at RAF Odiham to sustain longer periods away from operations and may not be possible until resources allow both in terms of aircrew, aircraft and flying hours.	
20 Nov 06	Puma ZA935	Unit Inquiry - Wirestrike in Morocco	The JHC J7 Training Branch is to review the current training of CRM across the Command and identify best practise for all JHC units.	
2 Jul 09	Puma ZE449	Service Inquiry - Ac landed very heavily following approach to FOB Washington.	9 - All pilots specifically log handling time in order to improve supervision.	
			12- Supervisors and assessors should not refrain from being critical of individuals' abilities on their F5201, thereby alerting other supervisors of potential weaknesses.	
			13 - Post OCF training on Sqns should be overseen by trainers independent of the Flt Cdrs to ensure independent supervision and verification of training.	
			22 - JHCHQ considers the applicability of recommendations 5, 6, 9, 11, 12-16,18,19, 21 against other types within command.	Last reviewed 23 Nov 10
26 Mar 10	Puma XW 222	Unit Inquiry - Close down	SH aircrew should be reminded to temper a flexible approach to flying with an appropriate balance of risk. JHC Safety to include	

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		due to there being insufficient fuel to carry out its task	this incident in FS updates.	
8 Aug 07	Puma ZA 934	Service Inquiry Catterick Puma accident	14a JHC Safety identifies a method, applicable to all aviation units, that readily identifies dilution rates to the chain of command.	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority
			JHC HQ and Force Commanders are to use the output of 14a above as a clear demonstration of the relationship between aircrew experience and operational tasking requirements when making tasking decisions and elevating risks.	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority
			JHC J7 investigates a method of formally recording 'quality handling' hours, in addition to P1 and P2 hours which will be used by supervisors, in conjunction with the output from 14a above, to provide a more explicit measure of experience levels <i>(the exact definition of Quality Handling Hours needs to be considered in this review, but could include handling other than Airtests, Engineering maintenance flights and long transits)</i> .	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority
			When home squadron based, Limited Combat ready (LCR) Aircrew must achieve NATO minimum monthly flying hours (15 hours). These hours should include regular, supervised, continuation training with a QHI or Training Captain.	Original SI recommendation
			JHC J7, in conjunction with SH STANEVAL, reviews the use of Out of Phase checks for continuation training.	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority
			JHC J7 makes an addition to the JHC FOB regarding the requirement for Force Commanders to ensure that a robust process for crew allocation is in place.	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority
			JHC J7 examines the training of supervisors and authorisers in order to ensure that sufficient emphasis is placed on the dangers of a flat cockpit gradient when combined with an inexperienced crew.	Recommendation added by CO JHC on 27 Jan 11 as the Convening Authority

Figure 15 – Examples of Incorrect Logging of Hours in STARS during Ex VM12
(Exhibit 18)

Date	Type of Sortie	Captain	Crew (Front)	Comments	PAX	Day / Night
21 Mar	DL/Nav/GH	CR	CR/QHI	GH for everyone logged even when P2	Y	D
28 Mar	TF/EQ	CR	CR	GH time logged when P2	N	D
28 Mar	EQ	CR	CR	First trip for Brown at night	N	N
29 Mar	EQ	CR	LCR	GH time logged when P2	N	D
29 Mar	EQ	CR	LCR	HP/NHP	N	D
31 Mar	SERE pick up	CR	CR	RNF approaches logged when all NVD time claimed	Y (As task)	N
31 Mar	Console	LCR	LCR	All PB's visited, NHP JS claiming P2, ALL claimed total GH	N	D
31 Mar	Gunnery	CR/QHI	CR/LCR	P2 Logged on Gunnery? All crewman logging GH	N	N
1 Apr	Gunnery	LCR	LCR	Gunnery, All crewman logging GH	Y	D
01 Apr	EQ	CR/QHI	CR	Brown with QHI, Logging all hours NVD whilst also 2 RNF approaches	N	N
02 Apr	EQ	CR	LCR	Logging all hours NVD whilst also 2 RNF approaches	N	N
02 Apr	EQ	CR/QHI	CR/LCR	Logging all hours NVD whilst also 9 RNF approaches	N	N
03 Apr	EQ	CR	LCR Smyth	Incorrect logging of GH	N	D
03 Apr	EQ	CR	LCR	NVD logged with IF Sim and RNF approaches	N	N
04 Apr	EQ	CR	CR/LCR	GH flown with no NVD Logged with DL's flown?	N	N
04 Apr	EQ	CR/QHI	LCR	GH Flown and DL's but no NVD Logged	N	N
05 Apr	EQ	CR/QHI	CR	Logging all hours NVD whilst also 2 RNF approaches	N	N