

HSRMC RESEARCH PROGRAMME - FUNDING STATUS AS AT 69th HSRMC MEETING (18 November 2014).

NB1: Changes from last update in *red italics*.

NB2: Figures in brackets are ROM costs presented for budgetary purposes only and are not included in the overall total figures.

Work Item	Cost	Funding						Comments	
		UK CAA	N CAA	Shell Aircraft	Oil & Gas UK	HSE	Other		
SECTION 1 - ONGOING WORK									
Item 1	HUMS - advanced analysis of HUMS data							Study completed. Final report published as CAA Paper 2011/01.	
	Original programme	£230k	£176k	£34k	£20k	-	-		-
	Trial extension	£63k	£13k	-	-	£50k	-		-
	Additional work	£153k	£62k	£11k	-	-	-		£80k (FAA)
	Total	£446k	£251k	£45k	£20k	£50k	-		£80k (FAA)
Item 2	Ditching/Water Impact							Side-floating helicopter study completed at EASA. EBS specification completed and published in CAP 1034. Sufficient funding available to support EASA RMT.	
	Side-floating helicopters	£250k	-	-	-	-	-		£250k (EASA)
	EBS specification	£57k	£32k	-	£10k	-	£15k		-
	EASA RMT support	<i>£96k</i>	<i>£96k</i>	-	-	-	-		-
	Total	<i>£403k</i>	<i>£128k</i>	-	£10k	-	£15k		£250k (EASA)

Work Item	Cost	Funding						Comments	
		UK CAA	N CAA	Shell Aircraft	Oil & Gas UK	HSE	Other		
Item 3	Operations to Moving Decks							Sufficient funding available to complete all work currently underway.	
	Original programme	£366k	£350k	-	-	-	-		£16k (BP)
	Amendment 15 (Jan 2005)	£72k	£35k	£37k	-	-	-		-
	Amendment 16 (Feb 2006)	£74k	£48k	£11k	-	-	£15k		-
	Amendment 17 (Dec 2006)	£9k	£9k	-	-	-	-		-
	Amendment 18 (Oct 2007)	£58k	£58k	-	-	-	-		-
	Amendment 19 (July 2008)	£79k	£64k	-	-	-	£15k		-
	Amendment 20 (Dec 2009)	£25k	-	-	-	£25k	-		-
	Amendment 22 (Apr 2011)	£118k	£88k	£30k	-	-	-		-
	<i>Amendment 24 (Feb 2013)</i>	<i>£89k</i>	<i>£89k</i>	-	-	-	-		-
	Repeater lights	£23k	£3k	-	£20k	-	-		-
	HELIOS participation fee	£12k	£12k	-	-	-	-		-
	<i>Interim system</i>	<i>£61k</i>	<i>£61k</i>	-	-	-	-		-
	Total	£986k	£817k	£78k	£20k	£25k	£30k	£16k (BP)	
Item 4	Helideck Lighting - in-service trials							<i>All work completed and reported in CAP 1077. Specification incorporated in CAP 437 (Appendix C); retrofit mandatory for night operations after 01 April 2018.</i>	
	Stage 2 lighting trials (prototype)	£72k	£56.5k	-	-	-	£15.5k		-
	Stage 2 lighting trials (production)	£50k	-	-	-	£35k	£15k		-
	Flashing light test spec.	£10.5k	£10.5k	-	-	-	-		-
	Total	£132.5k	£67k	-	-	£35k	£30.5k		-

Work Item	Cost	Funding							Comments
		UK CAA	N CAA	Shell Aircraft	Oil & Gas UK	HSE	Other		
Item 5	HOMP - extension to low airspeed regime								On hold.
	Westland Helicopters Phase 1	£24k	£9k	-	£15k	-	-	-	
	GE Aviation Phase 1	£15k	£15k	-	-	-	-	-	
	Phase 2 (flight trials)	TBD	-	-	-	-	-	-	
	Total	£39k	£24k	-	£15k	-	-	-	
SECTION 2 - EXTENSIONS TO EXISTING PROGRAMMES									
Item 6	Offshore Approaches								Sufficient funding available to complete work underway. <i>Further funding will be required for in-service trials.</i>
Current work	Phase 1, 2 & 3a	£109k	£109k	-	-	-	-	-	
	RAIM availability	£31k	£31k	-	-	-	-	-	
GIANT work	Phase 3b	£34k	-	£19k	-	-	-	£15k (EU)	
	EGNOS reception	£68k	-	£29k	-	-	-	£39k (EU)	
	Simulator trials	-	-	-	-	-	-	-	
HEDGE work	AIS receiver	£80k	£9k	-	£25k	£46k	-	-	
	Trials extension	£64k	£52k	£12k	-	-	-	-	
	Total	£386k	£201k	£60k	£25k	£46k	-	£54k (EU)	

Work Item	Cost	Funding						Comments	
		UK CAA	N CAA	Shell Aircraft	Oil & Gas UK	HSE	Other		
Item 7	Helideck Friction - review of CAP 437 criterion and new criterion for aluminium decks							All work completed. CAA scheme to be finalised and agreed with industry prior to reporting. No further funding required at this time.	
	Friction measurement & monitoring	£95k	£60k	-	-	-	£35k		-
	Criterion for aluminium decks	£71k	£33k	-	-	-	£38k		-
Helideck nets	Feasibility study	£9k	£9k	-	-	-	-		-
	Initial testing	£35k	£13k	-	-	-	£22k		-
	Further wheels/ nets/ deck surfaces	£28.1k	£15.6k	£12.5k	-	-	-		-
Total	£238.1k	£130.6k	£12.5k	-	-	-	£95k		-
Item 8	Helideck Environment - review of vertical flow criterion							All work completed and reported in CAA Papers 2008/02 and 2008/03.	
	Current work	£40k	£28k	-	-	-	£12k		-
	Update of design guide	£7.5k	£7.5k	-	-	-	-		-
Total	£47.5k	£35.5k	-	-	-	-	£12k		-

Work Item	Cost	Funding						Comments	
		UK CAA	N CAA	Shell Aircraft	Oil & Gas UK	HSE	Other		
SECTION 3 - NEW PROJECTS									
Item 9	HUMS - extension to rotor systems							Preliminary study completed and published in CAA Paper 2008/05. Study on application of AAD to tail rotors completed, and reported. Final report published as CAA Paper 2012/01. No further funding required at this time.	
	Preliminary study	£46.5k	£16.5k	-	-	£30k	-		-
	Application of anomaly detection techniques to tail rotor health monitoring	£100k	£71k	-	-	£29k	-		-
	Further work, e.g. support for AgustaWestlands RTVP	TBD	-	-	-	-	-		-
	Total	£146.5k	£87.5k	-	-	£59k	-		-
Item 10	Tail Rotor Strike Warning							Insufficient funding to proceed at present.	
	Estimated costs	(£150k)	-	-	-	-	-		-
	Total	(£150k)	-	-	-	-	-		-
Item 11	TCAS - in-service trials							Trials completed and implementation in progress.	
	Estimated costs	(£250k)	-	-	-	-	-		-
	Total	(£250k)	-	-	-	-	-		-

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Item 12	EGPWS Warning Envelopes							<i>Additional £22.5k funding required for next phase of work on warning form and format.</i>	
	HOMP data analysis and reporting.	£27k	-	-	-	-	-		£17k (OGP) £10k (Bristows)
	Additional helicopter type.	£18.5k	-	-	£10k	-	-		£5k (OGP) £3.5k (BP)
	<i>Further warning envelope(s) – G-WNSB accident.</i>	<i>£22.5k</i>	-	-	<i>22.5k</i>	-	-		-
	Warning form and format.	£50k	-	-	<i>£2.5k</i>	£25k	-		<i>£22.5k</i>
	Total	£118k	-	-	£35k	£25k	-		£58k
Item 13	Triggered Lightning Strike Forecasting							Sufficient funding available to complete all work currently identified.	
	Forecasting system development & demonstration.	£66k	-	£30k	-	£36k	-		-
	In-service trial #1.	£18k	-	£2k	-	£4k	-		£12k
	System upgrade.	£37k	-	-	£3k	-	-		£23k (CHC)
	In-service trial #2.	£5k	-	-	-	-	-		£16k (oil companies)
	Total	£126k	-	£32k	£3k	£40k	-		£51k
Overall Totals		£3,068.6k	£1,741.6k	£227.5k	£128k	£280k	£182.5k	£509k	