27 November 2018

UPDATE ON EQUIPMENT PLAN FINANCIAL SUMMARY 2017
AMENDMENT TO SECTION D, PROJECT PERFORMANCE SUMARY TABLE 2017

Following publication of the Defence Equipment Plan financial summary 2018 in November 2018, an omission was identified in the Project Performance Summary Table 2018 for the cost variation of P-8 Poseidon. The omission also affected Section D of the Defence Equipment Plan financial summary 2017.

The omission has been corrected in a revised version of Equipment Plan 2018 published on 27 November. This document presents the amended version of Section D of the 2017 Equpment Plan Financial Summary and supercedes the orginal publication.

Section D: Project Performance Summary Table 2017

1. This is the second year that the Department has published the Project Performance Summary Table (PPST) within the Equipment Plan. Independent validation of the data has again been conducted by the MOD's Cost Assurance & Analysis Service. This year the NAO have reviewed our PPST assurance process and controls.

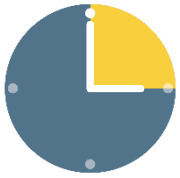
2. The purpose of the PPST is to provide an overview of the delivery performance of the Department's largest equipment procurement projects that have been approved for Demonstration and Manufacture[1] phases. We report on the forecast cost of the project, the forecast timescales for achieving the In-Service Date (ISD), and the forecast achievement of the Key User Requirements (KURs), all of which are approved as part of the Main Gate business case or when we commit to manufacture of the equipment.

3. The PPST is aligned with departmental project reporting policy, which means some minor adjustments have been made to align our publicly reported position with validated project performance figures. This is part of our drive to improve data quality in our corporate information systems. See the publication notes under Figure 18 below for details. The headlines are summarised here in Figure 11.

Figure 11 – PPST17 Key findings

+£224 million

0.5 per cent increase in forecast costs, predominantly driven by two projects



+57 months

2.9 per cent increase in forecast time from a total combined approved duration of 1,942 months

99 per cent

Of key user requirements (196 of 198) are forecast to be met

Changes to the PPST Population

[1] Previous sections of the Equipment Plan look at the overall 10-year forecast for a project which includes contractually committed costs, uncommitted costs and, where applicable, future phases of work. Consequently a direct comparison cannot be made with approved Demonstration and Manufacture phase costs presented here in Section D which are a portion of that total.

4. We have taken the opportunity to refresh the project population for 2017 as there were a number of major projects that received a Main Gate or Demonstration Phase approval in 2016/17 including Dreadnought, Protector, Poseidon and Apache Capability Sustainment Programme. While continuity with the NAO's Major Projects Report (MPR) population has allowed approximate comparisons of delivery performance from year to year, a number of projects that have featured for many years in the MPR and PPST are expected to reach their ISD in the next few years (including Queen Elizabeth Class carriers, Astute Boats 4 to 7, Lightning II and Tide Class tankers). To maintain a broad spectrum of projects from across the Equipment Plan we must therefore add new projects.

5. Within the Complex Weapons Pipeline some additional projects were introduced this year, bringing the total number of projects in the pipeline to 10. The new additions are Future Local Area Air Defence System (FLAADS) for the Type 26 Global Combat Ship, Short Range Air-to-Air Missile (SRAAM) Sustainment Main Gate 2, Brimstone Capability Sustainment Programme, Beyond Visual Range Air-to-Air Missile (BVRAAM) on Lightning II and Spear Capability 3.

6. Additionally, a number of projects which have achieved ISD in previous years have been removed from the PPST population: Astute Boats 1 to 3, Atlas A400M, Typhoon Fighter Aircraft and Typhoon Future Capability Programme.

7. We have also updated our terminology. Last year's PPST, and before it the Major Projects Reports, referred to programmes and portfolios as 'projects'. We now refer to each project in the Typhoon and Complex Weapons portfolios as discrete projects – that is to say we are reporting on 10 Complex Weapons projects in the population rather than treating the portfolio itself as a project. In total there are 28 projects in the PPST17 population.

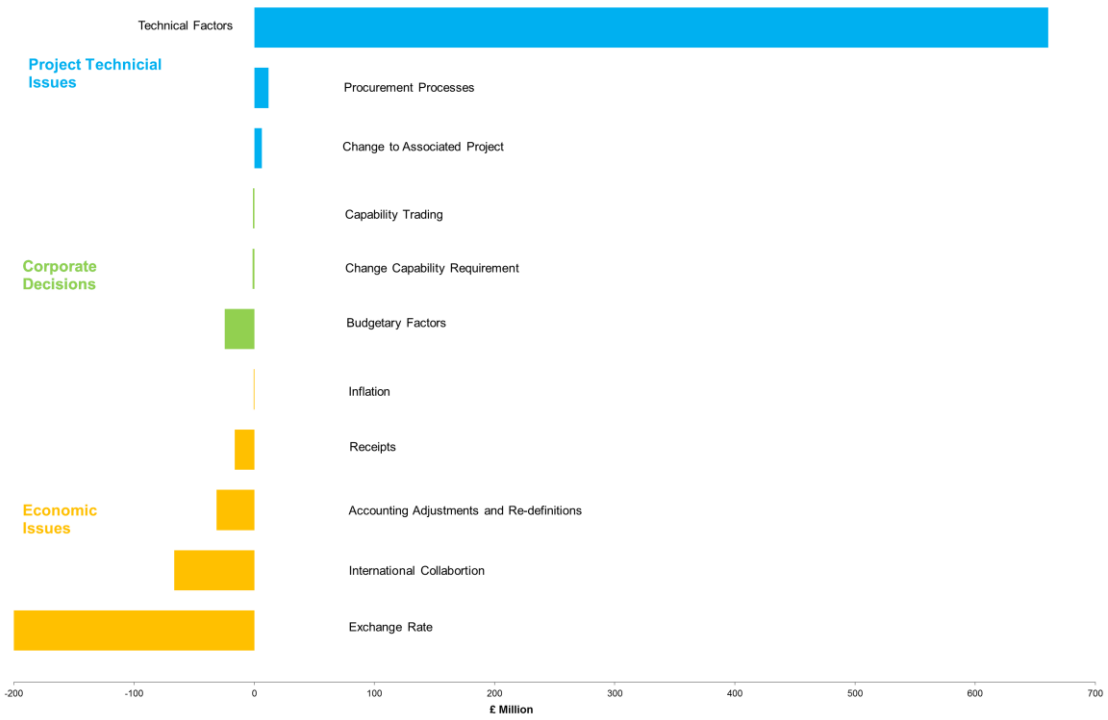
Forecast Cost

8. During 2016/17 the aggregate forecast costs of the current phase of the 28 projects in the population increased by £224m (0.5 per cent of the total costs). Of the seven projects reporting an increase in their costs, the two largest were Astute Boats 4-7 (£516m), and Warrior Capability Sustainment Programme (£136m). Astute forecast costs rose due to a range of factors including increased schedule durations for the later boats and Warrior Capability Sustainment Programme encountered technical and engineering challenges associated with the new cannon build standard. These were offset by ten projects reporting a decrease in costs. The largest decrease was on Lightning II (-£210M) due to a routine adjustment to align the cost forecast for new approvals with foreign exchange rate assumptions used in the Department's financial planning process[2]. The full cost of projects at forecast exchange rates is recognised separately in the Department's budgetary planning process with a provision for the difference in forecast exchange rates and planning assumption rates.

[2] The Department's annual budgetary cycle uses standard exchange rate assumptions for forecasting project costs. This enables foreign currency demand to be managed centrally through an annual revision of exchange rates rather than continually re-forecasting in response to changes in exchange rates.

9. Forecast cost variations are attributed to a number of categories, consistent with those used previously by the NAO. The principal cause of cost increases comes under the 'technical factors' category, comprising issues which are predominantly supplier related, whilst the main cause of cost decrease is due to foreign exchange rates. Figure 12 presents an overview of variances by category.

Figure 12 – In-year Cost Variations by Factor



Forecast Time

10. A total of 18 of the 25 projects which have an ISD approved report no change to their forecast in-service date[3]. However, there was a total project duration increase of 57 months which represents a 2.9 per cent change from the total approved duration of 1,942 months.

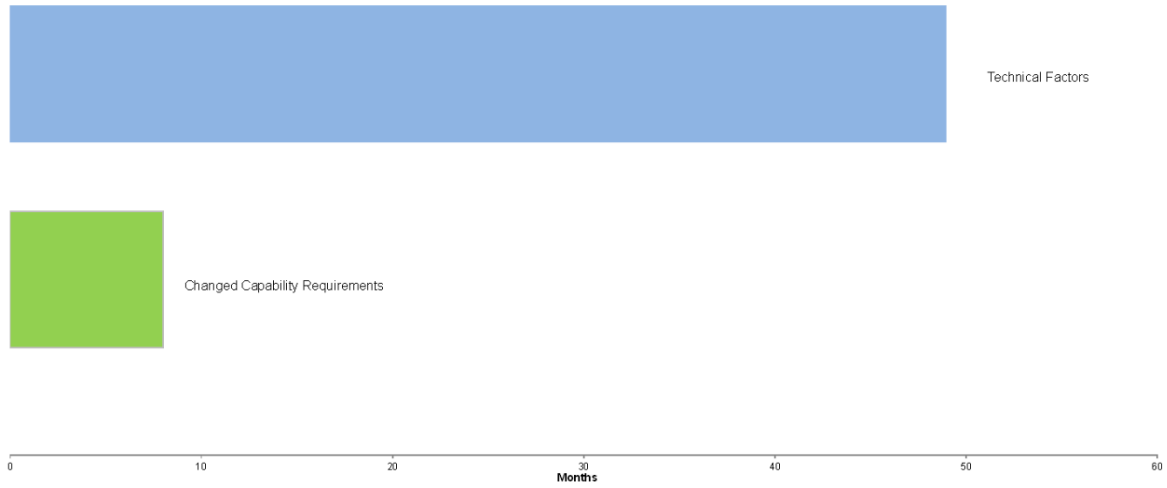
11. Increases are reported on four projects; Marshall (28 months), Warrior Capability Sustainment Programme (19 months), Tide Class Tanker (14 months) and Complex Weapons Sea Ceptor Type 23 (eight months). The delay to Warrior Capability Sustainment Programme is directly tied to the cost increase outlined in Paragraph 82. For Marshall and Tide Class Tanker, both projects encountered technical difficulties but project costs are currently protected due to their commercial arrangements.

12. Three projects reported reductions to their forecast in-service dates; Core Production Capability (eight months), Typhoon Brimstone 2 Integration (three months)

[3] Type 26 Global Combat Ship, Dreadnought and Spear Capability 3 do not yet have an ISD. The ISD will be set when the decision to manufacture is taken.

and Complex Weapons Brimstone 2 Integration (one month). Figure 13 shows that overall the main cause of time variance was technical factors.

Figure 13 – In-year Time Variations by Factor



Key Performance Measures

13. Forecast delivery of key performance measures remains at 99 per cent with 196 of the 198 Key User Requirements (KURs) forecast to be met across 26 projects[4]. There are two KURs that will not be met during the current approved phase of New Style of IT (Deployed) as they rely on delivery of subsequent tranches of activity. While these KURs were approved under Main Gate 1 they are not planned to be delivered as part of the current scope of work, so the KUR delivery forecast is expected to improve when future phases of work are approved.

Comparison with Performance in PPST16

14. A comparison on a like for like basis cannot be made against last year or prior years due to projects entering and leaving the population and projects which have received uplifts to their approval.

Figure 18 – PPST Comparison

Year	Cost forecast variation	Time forecast variation	Forecast achievement of performance measures (KURs)	Number of projects
2017	+£224m	+57 months	99%	28

[4] Type 26 Global Combat Ship and Dreadnought do not yet have KURs approved. The KURs will be approved when the decision to manufacture is taken.

2016	+£237m	+34 months	99%	22[5]

[5] We have changed the way we categorise projects in the PPST by counting projects individually instead of counting a portfolio of projects as one project. PPST16 referred to 12 projects which under our new description is 22 projects. See the Defence Equipment Plan 2016 for full details of last year's population.

Figure 19 – Project Performance Summary Table 2017

Portfolio	Project	Description	Cost				Time				Key User Requirements (KURs)						
			Expected cost to completion at approval (£m)	Current forecast cost to completion (£m)	Total cost variation (£m)	In-year change on costs to completion (£m)	Expected In-Service Date at approval	Current forecast In-Service Date	Total time variation (months)	In-year change to In-Service Date (months)	Number of Key User Reqts	To be met	To be met, with risks	Total number of Key User Reqts to be met	Not to be met	In-year change, to be met, with risks	In-year change - not to be met
-	AJAX (formerly Scout Specialist Vehicle)	Armoured Fighting Vehicle	5,479	5,406	-73	-23	Jul-20	Jan-20	-6	0	11	11	0	11	0	0	0
-	Apache Capability Sustainment Programme	Sustainment of Attack Helicopter	1,778	1,778	0	0	Apr-22	Apr-22	0	0	0	0	0	0	0	0	0
-	Astute Boats 4-7	Attack Submarine	5,859	6,697	838	516	Aug-15	Nov-18	39	0	10	8	2	10	0	0	0
Complex Weapons Pipeline	Brimstone 2 Integration	Integration of Air to Ground Missile	166	149	-16	-16	Oct-12	May-16	43	-1	9	9	0	9	0	0	0
	Brimstone Capability Sustainment Programme	Sustainment Programme of Air to Ground Missile	521	521	0	0	Oct-22	Oct-22	0	0	8	8	0	8	0	0	0
	BVRAAM on Lightning II	Fighter Integration of Air to Air Missile	80	80	0	0	Dec-24	Dec-24	0	0	8	8	0	8	0	0	0
	Future Anti Surface Guided Weapon (Heavy)	Maritime Air to Ground Missile (Heavy)	392	347	-45	-4	Oct-20	Oct-20	0	0	5	5	0	5	0	0	0
	Future Anti Surface Guided Weapon (Light)	Maritime Air to Ground Missile (Light)	311	303	-8	-4	Oct-20	Oct-20	0	0	5	5	0	5	0	0	0
	Sea Ceptor FLAADS (M) Type 23	Maritime Ground to Air Missile (Type 23)	850	856	5	6	Nov-16	Mar-18	16	8	10	10	0	10	0	0	0
	Sea Ceptor FLAADS (M) Type 26	Maritime Ground to Air Missile (Type 26)	130	128	-2	-2	Dec-19	Dec-19	0	0	0	0	0	0	0	0	0
	Spear Capability 3	Fighter Air to Ground Missile	473	473	0	0	ISD to be set at Main Gate				8	8	0	8	0	0	0
	SRAAM Sustainment (MG1)	Sustainment Programme of Air to Air Missile	415	386	-28	-28	Nov-18	Nov-18	0	0	8	8	0	8	0	0	0
	SRAAM Sustainment (MG2)	Sustainment Programme of Air to Air Missile	246	257	11	11	Aug-22	Aug-22	0	0	0	0	0	0	0	0	0
-	Core Production Capability	Core Manufacturing Facility	1,385	1,609	224	-9	Jun-26	Oct-25	-8	-8	2	1	1	2	0	0	0
-	Dreadnought	Ballistic Submarine	2,587	2,587	0	0	ISD to be set at Main Gate				KURs to be set at Main Gate						
-	Lightning II	Fighter / Attack Aircraft	8,915	8,017	-897	-210	Dec-18	Dec-18	0	0	7	6	1	7	0	0	0
-	MARS Tanker	Naval Logistics Support	596	550	-45	0	Oct-16	Dec-17	14	14	11	11	0	11	0	0	0
-	Marshall	Air Traffic Control System	1,890	1,890	0	0	Feb-17	Jun-19	28	28	7	7	0	7	0	0	0
-	New Style of IT (Deployed)	Information Capability to the Frontline	166	166	0	0	Mar-18	Mar-18	0	0	9	7	0	7	2	0	0
-	P-8A Poseidon	Maritime Patrol Aircraft	2,392	2,259	-134	-134	Apr-20	Apr-20	0	0	9	9	0	9	0	0	0
-	Protector	Unmanned Aircraft	704	704	0	0	Jul-21	Jul-21	0	0	14	14	0	14	0	0	0
-	Queen Elizabeth Class Carriers	Aircraft Carrier	3,541	6,102	2,561	0	Jul-15	Feb-18	31	0	9	7	2	9	0	0	0
-	Sky Sabre	Ground Based Air Defence System	618	599	-19	4	Mar-20	Mar-20	0	0	9	9	0	9	0	0	0
-	Type 26 Frigates	Global Combat Ship	1,822	1,822	0	0	ISD to be set at Main Gate				KURs to be set at Main Gate						
Typhoon	Meteor Integration	Integration of Beyond Range Visual Air to Air Missile	130	107	-23	5	Jun-18	Jun-18	0	0	10	7	3	10	0	3	0
	Storm Shadow Integration	Integration of Deep Strike Missile	172	114	-58	4	Aug-18	Aug-18	0	0	10	9	1	10	0	1	0
	Brimstone 2 Integration	Integration of Precision Attack Missile	186	207	22	-28	Dec-18	Dec-18	0	-3	10	7	3	10	0	3	0
-	Warrior Capability Sustainment Programme	Infantry Fighting Vehicle	1,319	1,488	170	136	Nov-18	Feb-22	39	19	9	9	0	9	0	0	0
			43,121	**45,601**	**2,480**	**224**	**-**	**-**	**196**	**57**	**198**	**183**	**13**	**196**	**2**	**7**	**0**
						224				**57**				**99%**			

Complex Weapons - Brimstone Capability Sustainment Programme. New to the PPST population for 2016/17.
Complex Weapons - BVRAAM on Lightning II. New to the PPST population for 2016/17.
Complex Weapons - Spear Capability 3. New to the PPST population for 2016/17. The In-Service Date will be approved when the decision to manufacture the munitions is taken at Main Gate.
Complex Weapons - SRAAM Sustainment Main Gate 2. New to the PPST population for 2016/17.
Core Production Capability. Revisions have been made to cost and time details in order to align with the approval and forecast details held in the DE&S corporate performance reporting system and departmental approvals. In an update from PPST16, the expected cost to completion incudes an additional £13m of which £10m was spent and is reflected in the forecast cost. In previous years these figures were included under assessment phase costs, but although this activity was completed in advance of contract award these figures are now reported here to align project forecasts with the Main Gate approval. In aligning the time approval to our reporting system, the total time variation has changed from 61 months to -8 months. This incorporates the approval granted on 9 March 2015 for the Core H Refuel and Resilience - a decision taken by the Department to prioritise supplying new nuclear cores to in-service submarines and defer the redevelopment of the core production facility.
Dreadnought. New to the PPST population for 2016/17. The In-Service Date and Key User Requirements will be approved when the decision to manufacture the vessels is taken at Main Gate.
Lightning II. The procurement of a 2nd operational squadron, as well as the UK's annual contribution to the F-35 programme Composite Share Ratio, was made through an agreed uplift of £3,248m to the approved budget position. In an update from PPST16 there has been a minor adjustment to the forecast cost with the addition of £10.3m for a Deployable Mission Rehearsal Trainer. PPST16 included this figure in the expected cost (the approved cost of the project) though not in the forecast cost. Lightning II has approval for an additional £218M solely to mitigate future foreign exchange rate risk; this is over and above the expected cost to completion.
New Style of IT (Deployed). New to the PPST population for 2016/17.
P-8A Poseidon New to the PPST population for 2016/17. Revisions have been made to current forecast cost to completion and Total Cost Variation to reflect a FOREX variance identified for 2017.
Protector New to the PPST population for 2016/17.
Sky Sabre (formerly Ground Based Air Defence). The project has moved from under the Complex Weapons Portfolio following approval of Phase 2 and it is now a separate project delivered by the DE&S Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) Operating Centre.
Type 26 Global Combat Ship. A second investment in March 2016 extended the Demonstration Phase and committed to almost all the equipment for the first three ships. The In-Service Date and Key User Requirements will be approved when the decision to manufacture the vessels is taken at Main Gate.