

Date 31 January 1956.
 To Mr. J. C. M. Frost, Chief Design Engineer (Special Projects Group)
 From T. D. Earl, Chief Technician (Special Projects Group)
 Subject USAF CONTRACT AF33(600)30161 - FINAL TECHNICAL REPORTS

The following is a list of the technical reports we have to compile for the USAF contract, together with details on their status etc. The deadline for final issue of these is 1 June 1956.

Contract areas are as follows:

1. Air Cushion Effect.
2. Stability and Control.
3. Air Intake and Gas Exhaust.
4. Performance.
5. Radial Engine Feasibility.

Tech. Report	Contr. Area	Subject or Title	Present Status		Est. Iss. Date or Date Iss.	Author
			Report	Work Content & Remarks		
1	4	Estimated Performance - Ducted Fan Ramjet Airplane - Project 1794	Typed but not approved.	95% complete	15/ 2/56	D. Brown
2	5	Propulsion System - Ducted Fan Ramjet Airplane - Project 1794	Issued.		28/12/55	A. Bryans
3	1	Air Cushion Effect Tests - Part 1 - Project 1794	Issued.		16/12/55	R. McKee
4		Details of Installation - Stress Analysis and Test Procedure of 1/6 Scale Subsonic Model in Gasie Memorial Tunnel				
Part 1	2	Details of Installation	Issued.		28/10/55	D. Ferguson, E. Kelman, W. Hill
Part 2	2	Test Procedure	Issued.		26/10/55	T.D. Earl, J. Wassenaar
5	4	Estimated Performance 20 Soar Engine Airplane - Project 1794	Typed but not approved.		15/2 /56	D. Brown

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			Report	Work Contents & Remarks		
6	4	Supersonic Sting Mounted Model (No. 4/21) and Tests - Project 1794	Issued.		26/11/55	D. Brown
7	2	Preliminary Analysis of Longitudinal Stability for Ducted Fan Ramjet Airplane Using Simple Control Equation - Project 1794	Typed but not approved.	Finished.	28/ 2/56	F. Heap E. Moneth
8	2	Installation and Test Procedure for Supersonic Wind Tunnel Testing of Twenty-Third Scale Reflection Plane Model No. 2/20 - Project 1794	Issued.		23/12/55	D. Ferguson T. D. Earl
9	4	Installation and Test Procedure for Supersonic Wind Tunnel Testing of Two Twenty-Fifth Scale Reflection Plane Model 3/19 - Project 1794	Issued.		23/12/55	D. Ferguson
10	3	Analysis of Thrust Recovery Tests with Model No. 3/14/1 - Project 1794	Draft typed.	95% complete.	28/2/56	B. Rode

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Succeeding numbers not yet allocated.	1	20 in. model test results.	Not started.	Tests about 50% complete. Reduction about 45%.	19/ 5/56	R. McKee CONWAY EASTMAN
	1	Delta wing model tests.	Not started. (Will be quite a small job).	Model not yet built.	1/ 4/56	R. McKee CONWAY EASTMAN
	2	Estimated transfer function and effects on long. SAC	Not started.	Completed for hydraulic scheme only.	31/ 3/56	F. Heap
	2	Hovering stability.	Not started.	Waiting for 20" model tests.	15/ 5/56	R. McKee
	2	Transition flight path integration.	Not started.	Waiting for 1/6 scale model results.	1/ 6/56?	J. Massenaar R. Kobel
	2	Full equations of motion.	Not started.	Stuck for labour and waiting for tunnel results.	1/ 6/56?	B. Etkin F. Heap E. Nemeth J. VAN WINSEN
	2	Frequency response test results.	Not started.	Waiting for test rig.	1/ 4/56	F. Heap
	2	1/23 scale model results. Excluding intake pressure recovery.	10% of graphs completed no text.	Reduction going as fast as possible.	15/ 3/56	F. Heap M. Rand E. Nemeth R. Kobel R. TACHEUCHI P. TILLEY

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Succeeding numbers not yet allocated.	2	1/6 scale model results excluding intake pressure recovery.	Traversing graphs complete.	Waiting on tests.	15/ 5/56	J. Massenaar R. McKee
	3	Internal intake flow results.	1st series complete (no text)	Waiting for 2nd series tests and possibly 3rd also.	1/ 5/56	R. Kobel
	3	Pressure recovery from 1/6 scale model 1/23 scale supersonic supersonic intake model Sting model Schlieren	Photos to hand Supersonic intake model pressures dispatched from M.I.T.	Waiting on 1/6th scale model and reduction of supersonic results.	1/ 5/56	M. Pans? NEMETH. R. TACHEUCHI P. TILLEY.
	3	End loss tests.	Not started.	20% of preliminary test data obtained. Rig for large scale nozzle tests not designed.	15/ 5/56	A. Bryans J. Conway
	3	45° segment tests.	Not started.	Waiting - tests.	15/ 3/56	D. Ferguson
	3	Pressure box tests	Data to hand but not correlated.		1/ 3/56	W. Hill

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Succeeding numbers not yet allocated.	4	Ducted fan ramjet performance re-estimate from tunnel tests.	Not started.	Waiting on test analysis of M.I.T. models and 1/6 scale model tests.	15/ 5/56	?
	4	Estimated effect of pods.	75% complete.		28/ 2/56	E.Nemeth
	4	Estimated wt. of ducted fan ramjet aircraft.	Not started.	Stuck for labour.	1/ 5/56	③
	4	Sting model test results.	Graphs ready. Text not started.	Stuck for labour.	1/ 3/56	E.Nemeth
	5	Revised static and forward thrust estimates for ducted fan ramjet aircraft.	Not started.	20% of work done.	1/ 4/56	A.Bryans
	5	Ducted fan ramjet technical summary.	Considerable art work and previous descriptive matter available.		1/ 5/56	T.D.Earl

c.
cc: Messrs. Moody, Johnston, Ferguson, Hedon,
Reap, Bryans, McKee, Macdonald ✓

T. D. Earl

