

DEVELOPMENT PROGRESS SUMMARY

A4D-3 SKYHAWK

REGRADED TO *unclassified*
AUTHORITY *DD-254, 4-12-64*

CONTRACT NO(s) 57-183
DOUGLAS AIRCRAFT COMPANY, INC.
EL SEGUNDO DIVISION

Serial #1 of R-25-3409

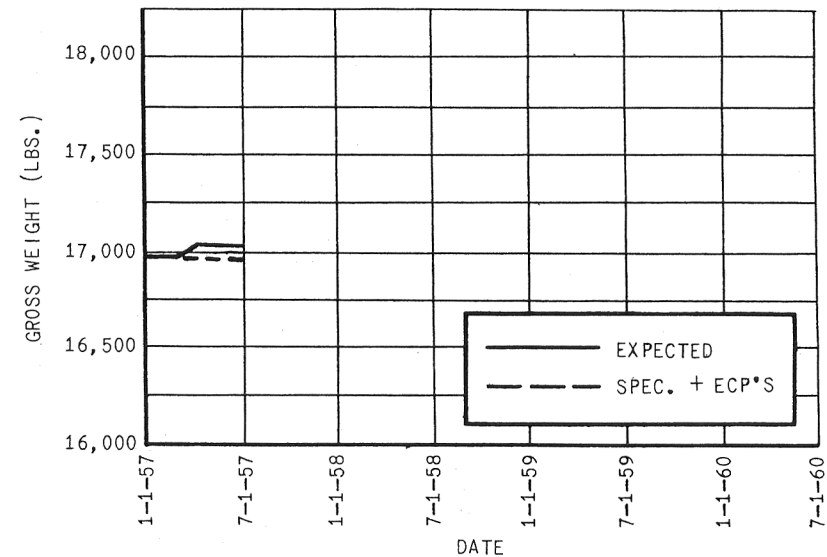
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△ SUMMARY

Notification of termination of the A4D-3 (Contract NOa(s) 57-183c) has been received by BuAer dispatch 2118532 of June.

△ WEIGHT STATUS

CONDITION	SPEC. WT. + ECP'S	EXPECTED WEIGHT
NOa(s) 57-183 - Wt. Empty	9119 lb.	9180 lb.
ATTACK - 790 gal. fuel (JP-5), 1-2000 lb. store - Gross Wt.	16,966 lb.	17,027 lb.



Above weights include pending ECP 297 which consists of the mock-up board changes, ECP 327-relocated inflight refueling probe to nose, GFE Spec. weight adjustment +11.6 lbs.

△ PERFORMANCE STATUS (1)

J52-P-4 ENGINE

LOADING CONFIGURATION - 1-2000 lb. store on ϕ pylon

In Flight Fueling Probe

790 Gallons of JP-5 Fuel

		Original Estimate + ECP's (2)	Guarantees (3)	Expected Performance (4)
TAKE-OFF WEIGHT	lb.	16,966		17,027
Fuel	lb.	5372		5372
Stall speed - power-off	kn.	113.2	116.0	113.4
Wind required for catapult take-off with H-8 catapult	kn.	8		9
Rate of climb at S.L.	ft./min.	8000		7900
Service ceiling	ft.	42,200		43,300
Combat radius	n.mi.	505		518
Average cruise speed	kn.	442		437
Mission time	hr.	2.4		2.5
Cycle time	hr.	2.7		2.8
COMBAT WEIGHT	lb.	12,817		12,878
Engine power		MILITARY		MILITARY
Fuel	lb.	3223		3223
Rate of climb at S.L.	ft./min.	10,900		10,800
Combat ceiling	ft.	47,200	46,200	48,000
Max. speed at S.L.	kn./M	571/.86	562	573/.87
Max. speed at 35,000 ft.	kn./M	533/.93		531/.92
Max. specific range at alt. for max. specific range	n.mi./lb.	.373 @ 41,100 ft.	.346 @ 41,100ft.	.381 @ 41,900 ft.
LANDING WEIGHT	lb.	10,269		10,326
Fuel	lb.	675		671
Stall speed - power-off at S.L.	kn.	88.1		88.3
Wind required for arrested landing with Mk.5, Mod.3 arresting gear	kn.	-6		-6

(Notes on following page)

△ NOTES

Notes for Performance Status on preceding page:

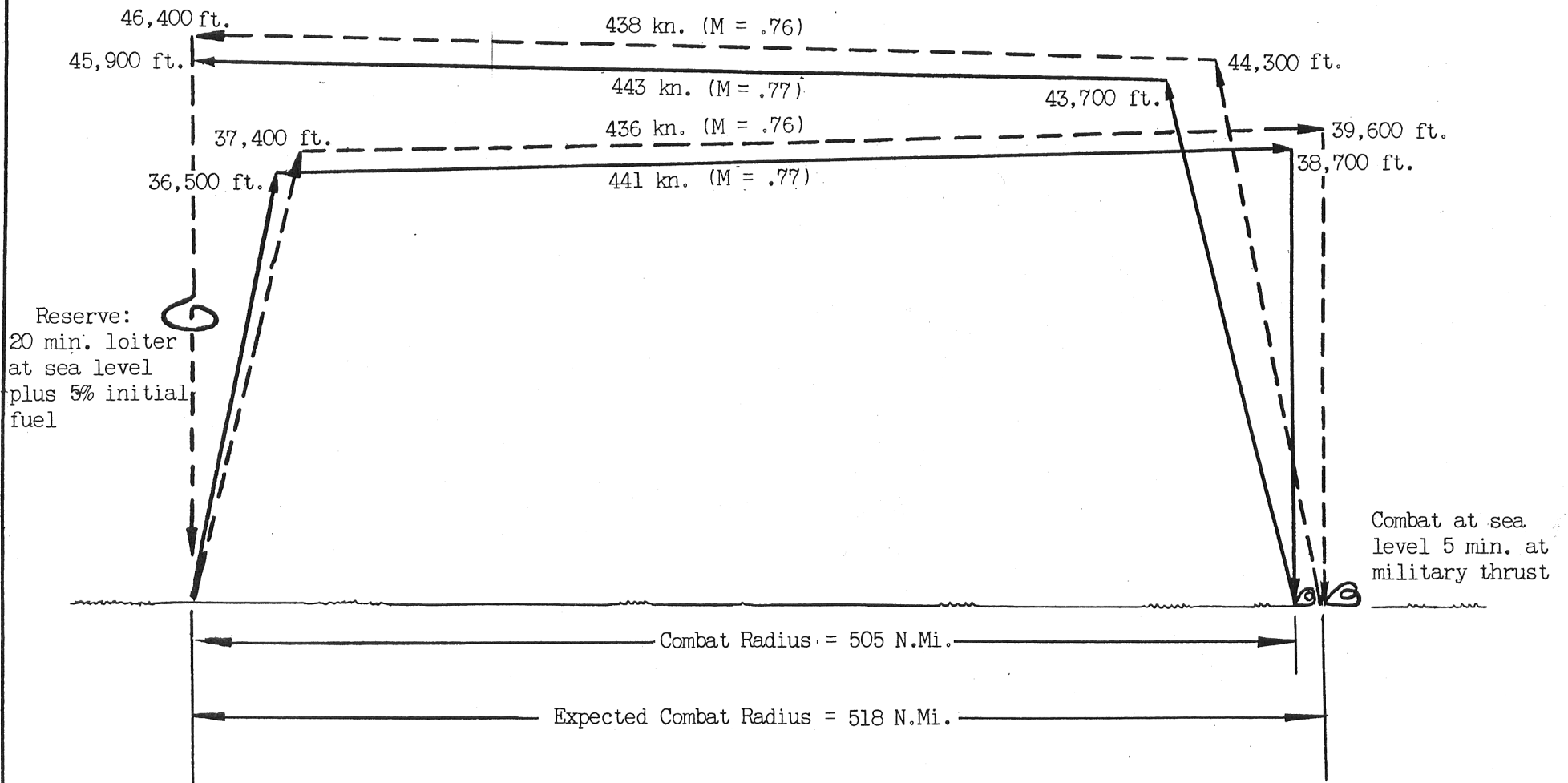
- (1) All performance data as of 26 June 1957 including ECP 297 and ECP 327.
- (2) Based on original estimate from which guarantees were derived.
- (3) Actual guarantees as of 26 June 1957, adjusted for applicable ECP's (see note 1).
- (4) Estimated and guaranteed performance are derived from A4D-3 wind tunnel tests and limited A4D-1 flight tests and are based on Pratt & Whitney Specification No. 1723 for the model J52-P-4 engine, dated 14 January 1957.
- (5) The differences between the expected and the original estimated performance are due to more recent wind tunnel results incorporated in the expected performance and an airplane overweight of 61 pounds.

△ COMBAT RADIUS PROFILE

LOW ALTITUDE ATTACK MISSION

2000 lb. Store on ϕ Pylon

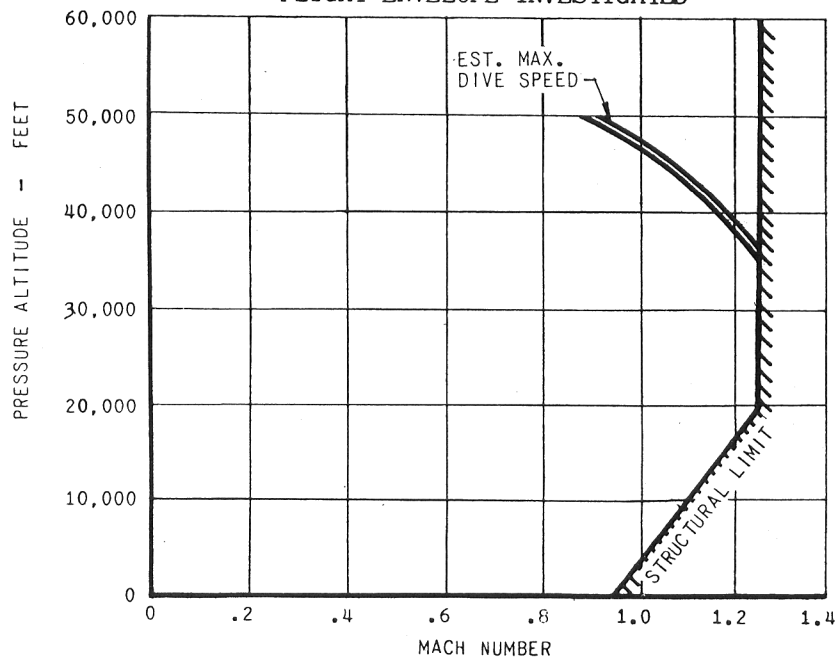
— Original Estimate + ECP's
- - - Expected



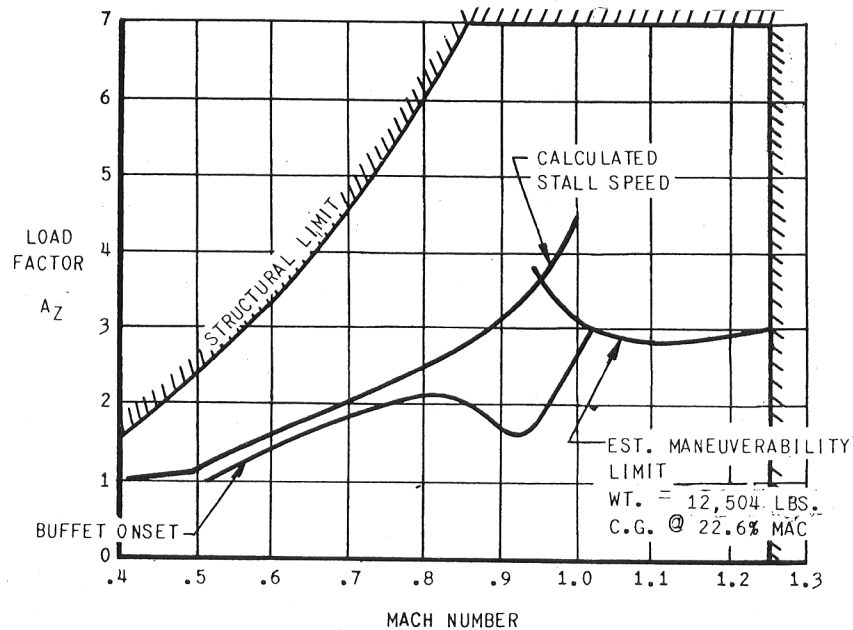
AERODYNAMIC DEMONSTRATION

ESTIMATED FLIGHT LIMITS

FLIGHT ENVELOPE INVESTIGATED

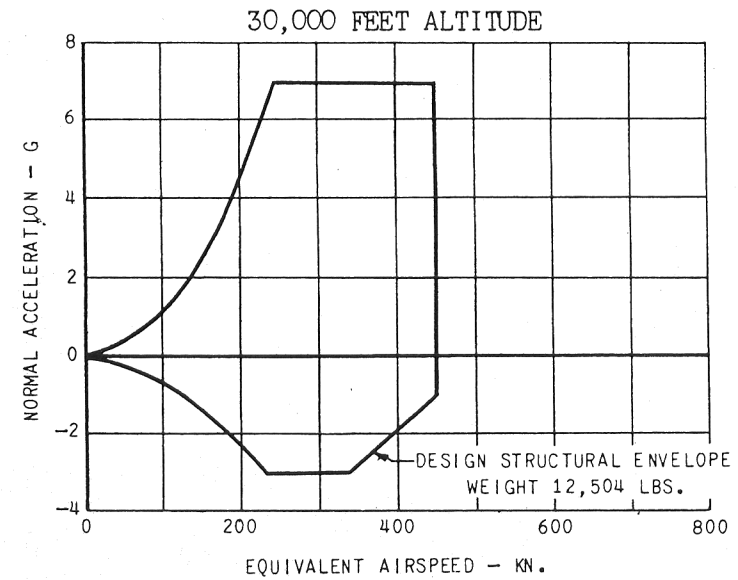
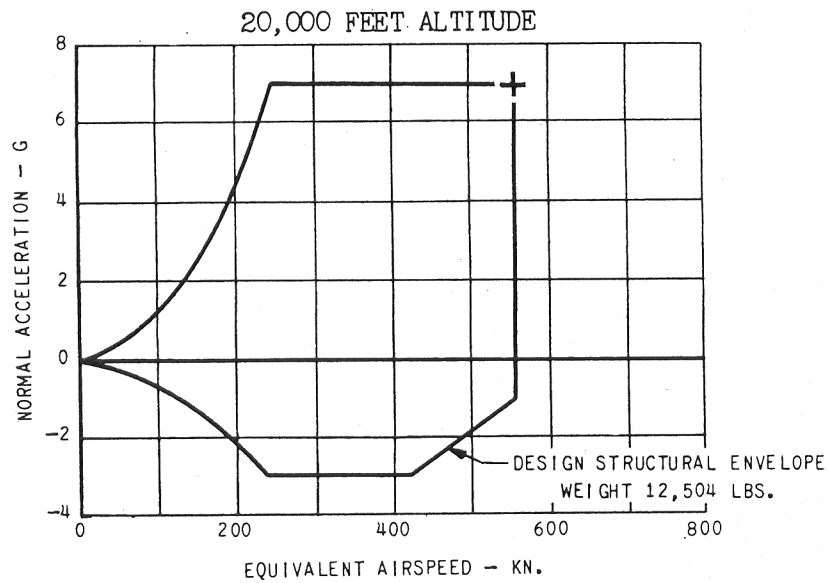
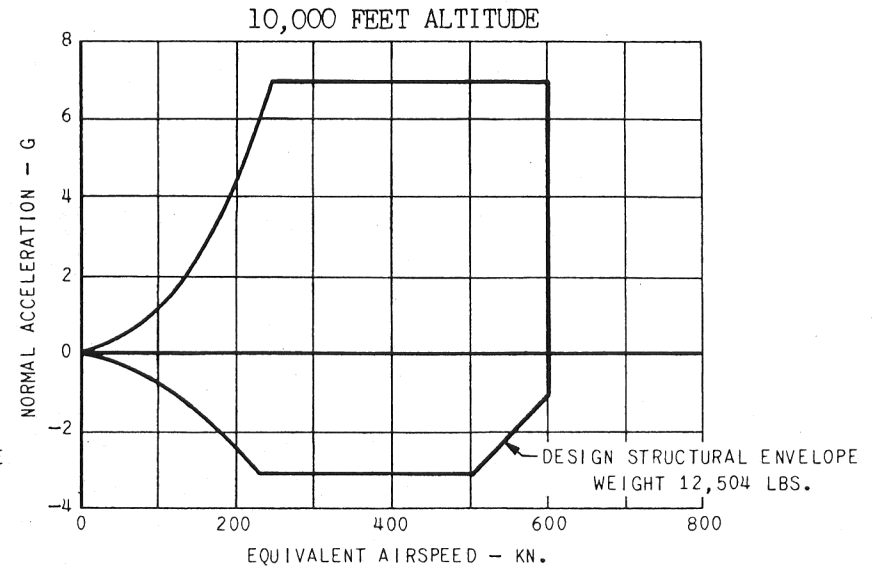
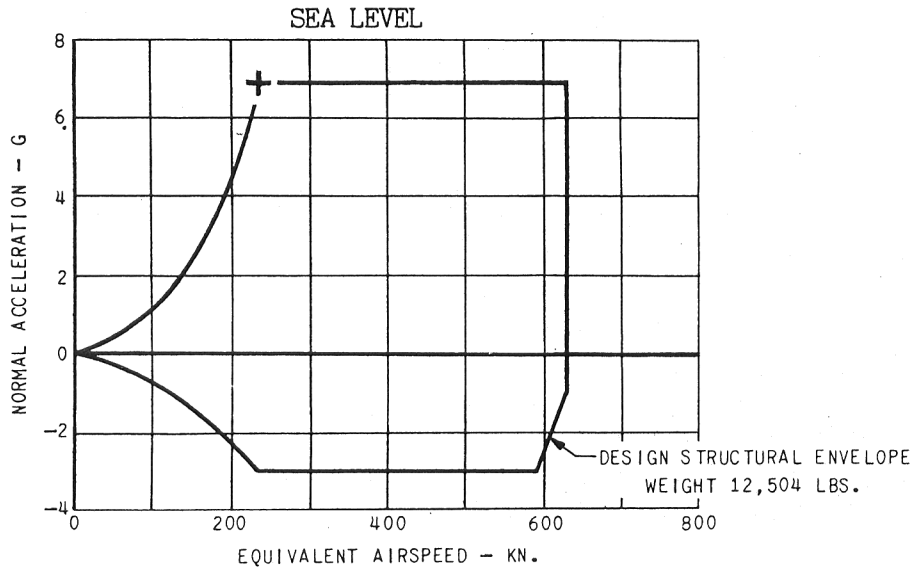


MANEUVERABILITY AT 40,000 FEET



STRUCTURAL DEMONSTRATION

+ STATIC TEST POINTS REQUIRED
○ STATIC TEST POINTS COMPLETED



STRUCTURAL DEMONSTRATION

