Characteristics Summary

"THUNDERCHIEF" F-105D-31

Wing Area .......................... 385 sq ft Length ......................... 64.4 ft
Span .................................. 34.9 ft Height ....................... 19.7 ft

AVAILABILITY

Number available

PROCUREMENT

Number to be delivered in fiscal years

TEST INVENTORY TOTAL

STATUS

1. Similar to the F-105B except for installation of the J75-P-19W engine with water injection in lieu of the -19 engine and incorporation of the adverse weather navigation, attack equipment, and integrated instruments.

Navy Equivalent: None

Mfr's Model: AP 63-31

POWER PLANT

(1) J75-P-19W
Pratt & Whitney
ENGINE RATINGS

S. L. S. LB - RPM MIN T. O. *26, 500-6900/9000-2.5
Max +24, 500-6400/6900-15
Mil 16, 100-6440/9000-30
Nor 14, 300-6080/8750-Cont

*With water and afterburner
†With afterburner operating
‡Limited by water supply

FEATURES

Crew .................................. 1
Area control fuselage
Liquid oxygen system
Fuselage bomb bay
L. E. wing flaps
Drag chute
Integrated auto pilot
Inflight refueling (probe-drogue & boom receptacle)
Engine ram air ejector
AN/ASG-19 fire control system (R-14A Radar)
AN/-APN-131 doppler navigation
Nose wheel steering
Spoiler/aileron combination
Max fuel capacity 3100 gal

ARMAMENT

Guns: 1 x 20mm (M-61)
Ammo: (tot) .................. 1028 rds
ROCKETS
6 x LAU-3/A, -13/A
6 x LAU-10/A
MISSILES
4 x AGM-12B
4 x AIM-9B
SPECIAL STORES
4 x MK-28
4 x MK-43
BOMBS
16 x M-117 ................. 750 lb
2 x M-118 ............... 3000 lb
9 x M-116A-2 (Fire)
9 x BLU-1/3 (Fire)
16 x MC-3 (Chemical)
16 x M-129 (Leaflet)
MINES
9 x MLU-10/B

1. First flight: ................... Jun 59
2. First acceptance: .......... Jul 59
4. Production completed ..... Feb 64
5. Delivery completed ........ Feb 64

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(AFGR 1, Addn 99) (21 of 76)
### Performance Summary

**COMBAT RADIUS**
- 543 (676) naut. mi
  - with MK-28 payload
  - at 507 knots avg.
  - in 2.23 hours.
  - Plus 30,000 FT drop fuel

**FERRY RANGE**
- 32,950 FT
- Drop Wing Tanks & Pylons

**GROUND SUPPORT BOMBER**

### Speed

- **COMBAT** 726 knots at zero ft alt., max power
- **MAX** 1192 knots at 36,089 ft alt., max power
- **BASIC** 726 knots at zero ft alt., max power

### Climb

- 4650 fpm sea level, take-off weight, military power
- 34,000 fpm sea level, combat weight, maximum power

### Stalling Speed

- 180.6 knots, power-off, landing configuration, take-off weight

### Take-Off

- 4270 ft no assist
- 5830 ft no assist

### Landing Weights

- Empty... 26,855 lb
- Combat... 35,637 lb
- Take-off... 48,976 lb

### Notes

1. Performance Basis: Flight Test Data
2. Wing tanks with 2235 lb of fuel are dropped prior to combat. Radius in parenthesis is calculated carrying wing tanks in combat.
3. With water injection.
4. These data, although published as F-105D-31, are representative of the F-105D aircraft.
5. Revision Basis: To reflect changes in Armament.

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**LOAD**
- Ammunition... 1000 rds/20mm Special Store... MK-28
- Fuel:
  - 2710 gal
  - protected 0%
  - droppable 57.2%
  - external 57.2%

**WEIGHTS**
- Empty... 26,855 lb
- Combat... 35,637 lb
- Take-off... 48,976 lb

**TIME TO CLimb**
- 1.75 min S.L. to 35,000 ft, combat wt., max power