

	FLIGHT	ENGINEERING	FIDO
1	a) confirm stable 400.0 km alt b) circularize orbit.		c) confirm circular orbit at 400.0 km d) confirm $V_{tan} = \text{ref } V_o$ $V_{cen} = 0$
2	b) set $NAV = \text{retr } V_{trg}$ d) set target = OCESS f) confirm fuel load 2500-4000 kg i) record $X = \text{ref } V_o - 225$ k) confirm $\Theta Hrt > 90$	a) reduce fuel load to 4000 kg	c) confirm $NAV = \text{retr } V_{trg}$ e) confirm target = OCESS h) confirm fuel load 2500-4000 kg j) record $X = \text{ref } V_o - 225$ l) confirm $\Theta Hrt > 90$ m) load flight track "LEDO" n) monitor flight track o) report major deviations from track
3	b) confirm $V_{tan} = \text{ref } V_o$ dist = 400.0 d) correct as needed using RCS	e) isolate RAD1,2,3 g) stow RAD1,2,3 *critical*	a) warn at $\Theta Hrt = 100$ c) confirm V_{tan} & dist are correct f) confirm NAV mode = retr V_{trg} h) confirm target reset to OCESS
4	a) $ME = 80\%$ @ $\Theta Hrt = 89.9$ *critical* e) MECO @ $V_{tan} = X$ *critical*		b) confirm $\Theta Hrt = 89.9$ c) confirm $ME = 80.0\%$ d) confirm engine accel. ~ 12.5
5	b) attempt to correct deviations from flight track using RCS	c) confirm reactor containment capacitors are fully charged. recharge as needed.	a) monitor flight track
6	a) monitor atmospheric drag - do not attempt corrections to flight track after drag > 5 - drag starts @ $\Theta Hrt \sim 14.6$ - peak drag (Q_{max}) ~ 122	d) antigrav = ON @ drag = 30 press y to show threshold = 5 e) confirm fuel flow ~ 420 bus 1 @ $\sim 11000A$	b) monitor atmospheric drag c) call out drag values every 10 m/s^2

7	a) after Q_{max} , call for parachute: - at $\Theta_{Hrt} \sim 0.02$ (if $V_{tan} < 250$) - or - - when velocity vector departs significantly from horizontal	c) deploy parachute when called for.	b) state when parachute conditions are reached
8	a) req. chute release @ $V_{h-r} < 45$ d) set engines to match $Acc - drag$ f) set NAV = dept ref drift sideways to correct position wrt landing pad as needed as outlined in landing training document. k) continually adjust engine accel to match $ACC - drag$. m) increase engine accel slightly to ensure $V_{cen} < 2.0$ @ TD.	b) release parachute when called for. i) antigrav = OFF j) disconnect engines (ION & ACC) from both coolant loops when positive air intake is indicated l) monitor coolant and reactor temps. - RAD 3 can be extended to short periods to reduce coolant temps as needed once $drag < 10 \text{ m/s}^2$.	c) confirm parachute released e) confirm engine accel = $ACC - drag$ h) confirm NAV=dept ref
9	a) MECO @ TD	d) shut down engines, gas injectors e) connect buses 1, 2, 3 f) connect engine ACC & ION to coolant loops until temp < 10 g) extend RAD3 open switches “d,” “e,” & “z” shut down reactor fuel pumps h) retract RAD 3 & shut down all systems ending with FC when reactor & coolant temps < 10	b) confirm TD c) confirm MECO