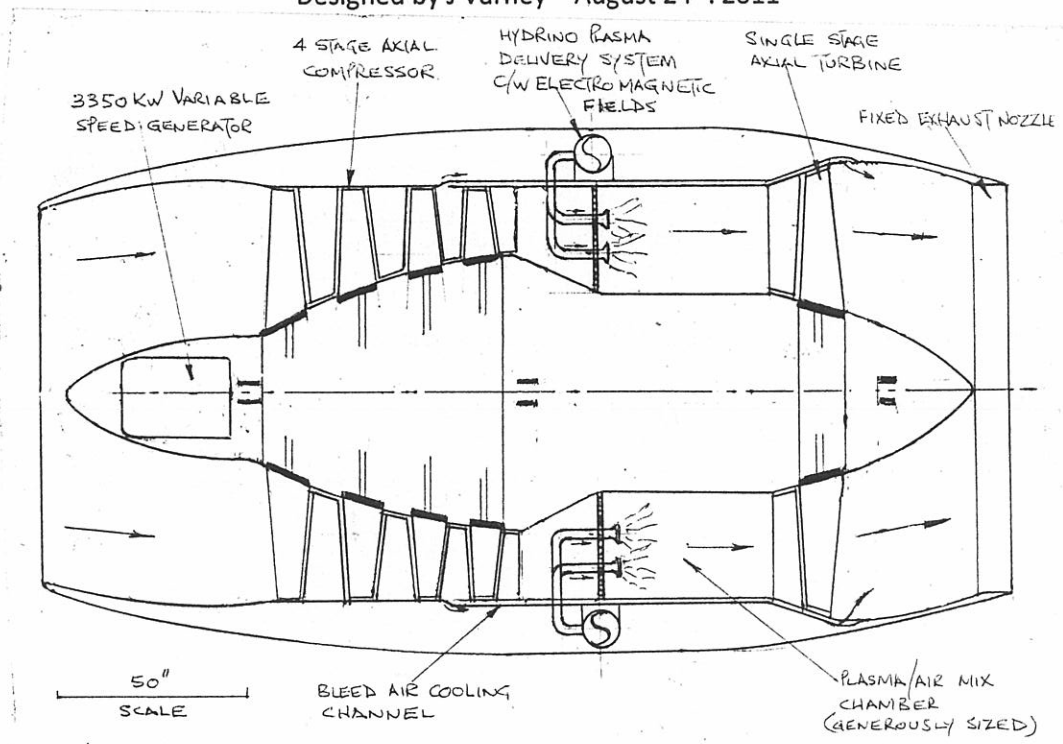
THE PLASMA TURBOJET FOR SUBSONIC COMMERCIAL AIRCRAFT

Designed by J Varney - August 24th. 2011



THE LARGEST PLASMA TURBOJET GIVING 100,000 LBS THRUST (ST. TAKE-OFF)

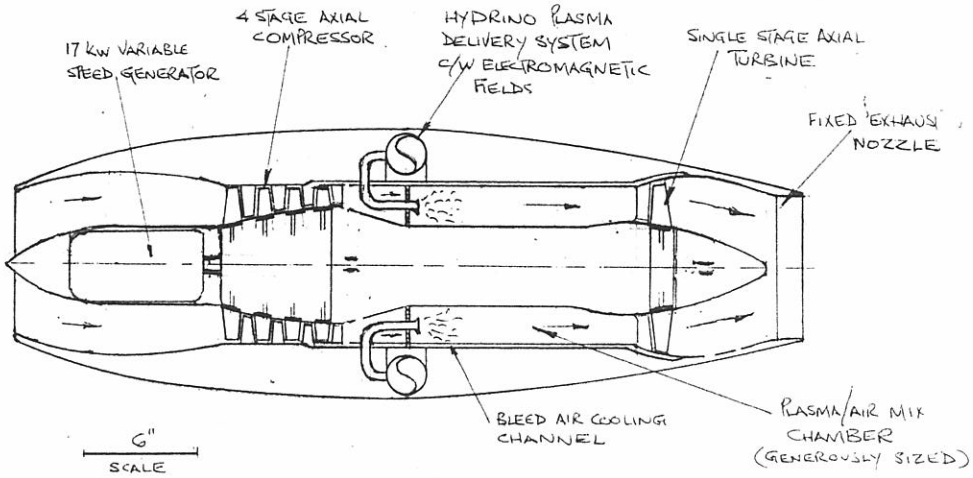
RANGE OF UNITS

Take-off Air rate lbs/sec.	246	493	739	986	1,232	1,478	1,971	2,464
Take-off Thrust lbs.f	10,000	20,000	30,000	40,000	50,000	60,000	80,000	100,000
Take-off Temp. to Turb. deg.R	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660
Take-off Exh. nozzle vel. ft/sec.	1,307	1,307	1,307	1,307	1,307	1,307	1,307	1,307
Take-off Plasma rate lbs/sec.	0.00585	0.0117	0.0175	0.0234	0.0293	0.0351	0.0468	0.0585
Cruise Air rate lbs/sec.	96	193	289	385	481	577	770	962
Cruise Thrust lbs.f	1,342	2,697	4,039	5,380	6,722	8,063	10,760	13,443
Cruise Temp. to Turb. deg.R	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Cruise Exh. Nozzle vel. ft/sec	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276
Cruise Plasma rate lbs/sec.	0.00114	0.0023	0.0034	0.0046	0.0057	0.0069	0.0091	0.0114
Variable speed Generator kw	335	670	1,000	1,340	1,675	2,010	2,680	3,350

Cruise conditions are Mach 0.85 @ 35,000 ft Engine design point is @ static take-off @ sea level
Compressor: 4 stage axial PR = 2.3 Turbine single stage axial. Isentropic eff. = .88 [for both units]
Axial velocity [mach#]: Compressor inlet/outlet = 0.7/0.5 Turbine inlet/outlet = 0.6/0.7 Ex. noz. = 0.75
Plasma/air mix chamber & turbine cooled with bleed air from before last stage of compressor.
Variable speed generator – for supplying electrical demands of hydrino production and delivery systems.
Hydrino plasma [fuel] is assumed to have a calorific value of ten million btu/lb.

THE PLASMA TURBOJET FOR SUBSONIC PRIVATE AIRCRAFT

Designed by J Varney - August 24th. 2011



THE SMALLEST PLASMA TURBOJET GIVING 500 LB THRUST (ST. TAKE-OFF)

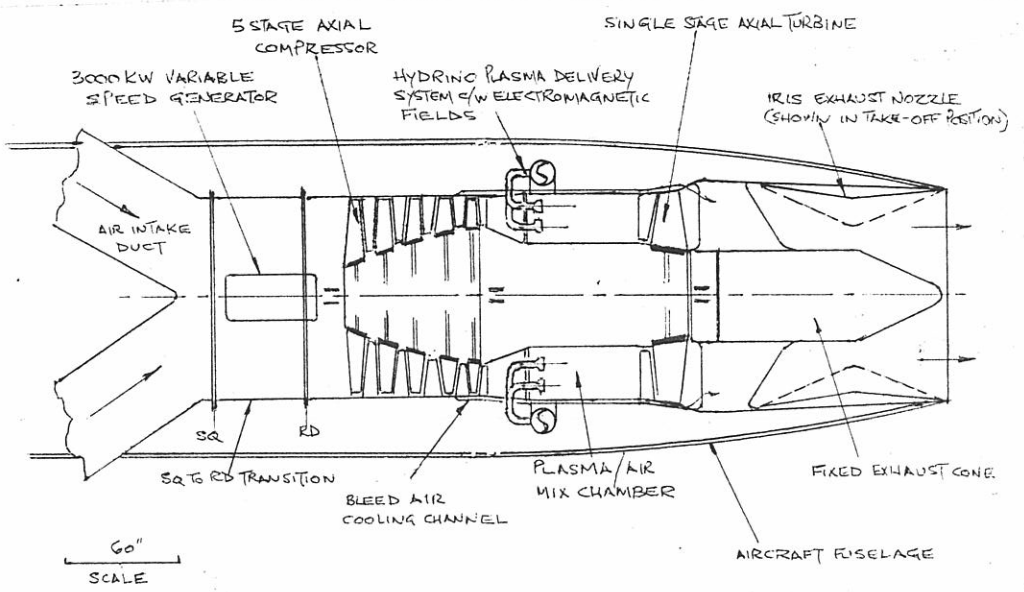
RANGE OF UNITS

Take-off Air rate lbs/sec.	12.3	24.5	37.0	49.3	73.9	98.5	148	197
Take-off Thrust lbs.f	500	1,000	1,500	2,000	3,000	4,000	6,000	8,000
Take-off Temp. to Turb. deg.R	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660
Take-off Exh. nozzle vel. ft/sec.	1,307	1,307	1,307	1,307	1,307	1,307	1,307	1,307
Take-off Plasma rate lbs/sec.	0.0003	0.0006	0.0009	0.0012	0.0018	0.0023	0.0035	0.0047
Cruise Air rate lbs/sec.	4.8	9.6	14.5	19.3	28.9	38.5	57.8	76.9
Cruise Thrust lbs.f	67	134	202	269	403	538	806	1075
Cruise Temp. to Turb. deg.R	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Cruise Exh. Nozzle vel. ft/sec	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276
Cruise Plasma rate lbs/sec.	0.00006	0.00011	0.00017	0.00023	0.00034	0.00046	0.00068	0.00091
Variable speed Generator kw	17	33	50	67	100	134	202	269

Cruise conditions are Mach 0.85 @ 35,000 ft Engine design point is @ static take-off @ sea level
Compressor: 4 stage axial PR = 2.3 Turbine single stage axial. Isentropic eff. = .88 [for both units]
Axial velocity [mach#]: Compressor inlet/outlet = 0.7/0.5 Turbine inlet/outlet = 0.6/0.7 Ex. noz. = 0.75
Plasma/air mix chamber & turbine cooled with bleed air from before last stage of compressor.
Variable speed Generator - for supplying electrical demands of hyrino production and delivery systems.
Hydrino plasma [fuel] is assumed to have a calorific value of ten million btu/lb.

THE PLASMA TURBOJET FOR SUPERSONIC COMMERCIAL AIRCRAFT

Designed by J Varney - August 25th. 2011



LARGEST PLASMA TURBOJET - INTEGRATED INTO FUSELAGE

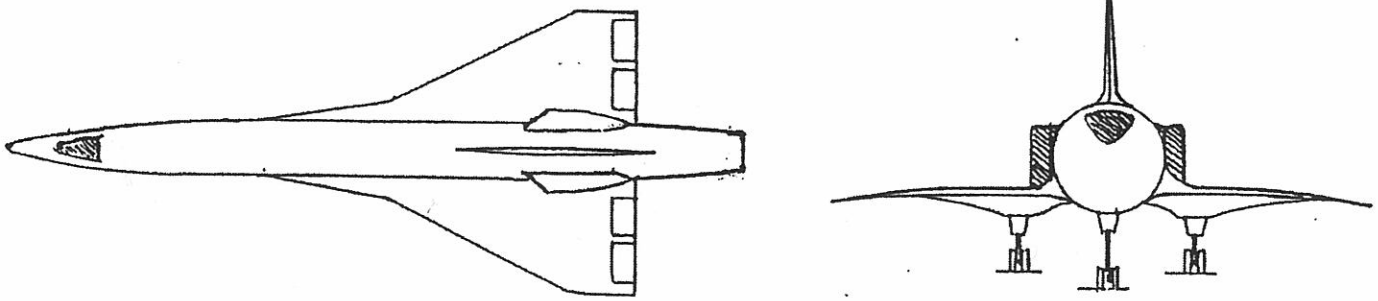
RANGE OF UNITS

Take-off Air rate lbs/sec.	468	937	1,405	1874	2342
Take-off Thrust lbs.f	20,000	40,000	60,000	80,000	100,000
Take-off Plasma rate lbs/sec.	0.0149	0.0299	0.0448	0.0598	0.0747
Transonic Air rate lbs/sec.	176	352	529	705	881
Transonic Thrust lbs.f	14,462	28,923	43,385	57,846	72,308
Transonic Plasma rate lbs/sec.	0.0129	0.0259	0.0388	0.0517	0.0647
Cruise Air rate lbs/sec.	118	236	354	472	590
Cruise Thrust lbs.f	5,901	11,803	17,705	23,606	29,508
Cruise Plasma rate lbs/sec	0.0045	0.0090	0.0135	0.0180	0.0225
Variable speed Generator kw	600	1,200	1,800	2,400	3,000
Turbine inlet temp deg. R	@ Take-off = 1943,		@ Transonic = 3460,		@ Cruise = 2700
Exhaust nozzle vel. ft/sec.	@ Take-off = 1375		@ Transonic = 3614		@ Cruise = 4536

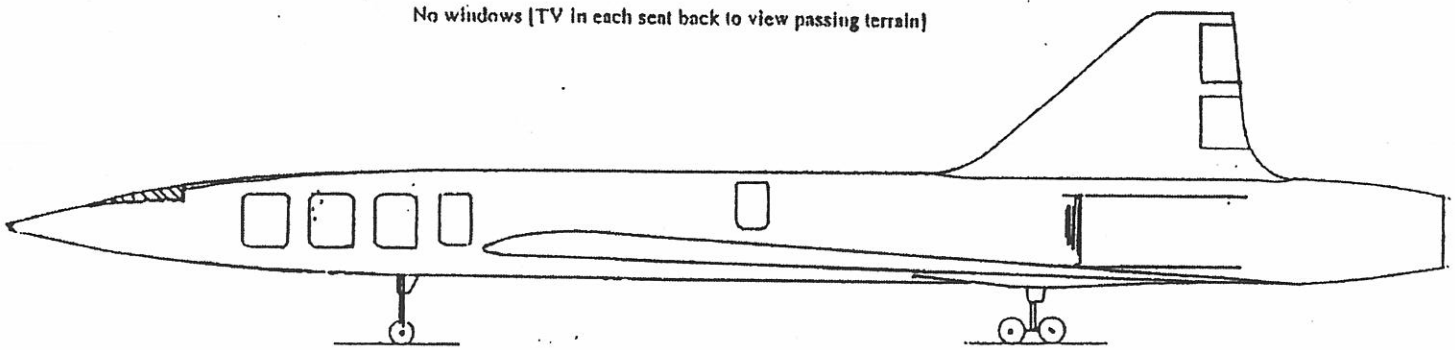
Cruise conditions are Mach 3 @ 70,000 ft Engine design point is at Transonic @ 40,000 ft.
Compressor: 5 stage axial PR = 3 Turbine single stage axial. Isentropic eff. = .88 [for both units]
Axial velocity [mach#]: Compressor inlet/outlet = 0.75/0.5 Turbine inlet/outlet = 0.6/0.7
Plasma/air mix chamber & turbine cooled with bleed air from before last stage of compressor.
Variable speed generator – for supplying electrical demands of hydrino production and delivery systems.
The Exhaust system incorporates a fixed throat cone in combination with an iris exhaust nozzle. The exh. nozzle sized to give subsonic vel./low noise @ take-off [iris nozzle fully retracted and comp. giving only a PR=1.85]. The Air intake has two-dimensional ducts c/w movable ramps to decelerate mach 3 intake air. Hydrino plasma [fuel] is assumed to have a calorific value of ten million btu/lb.

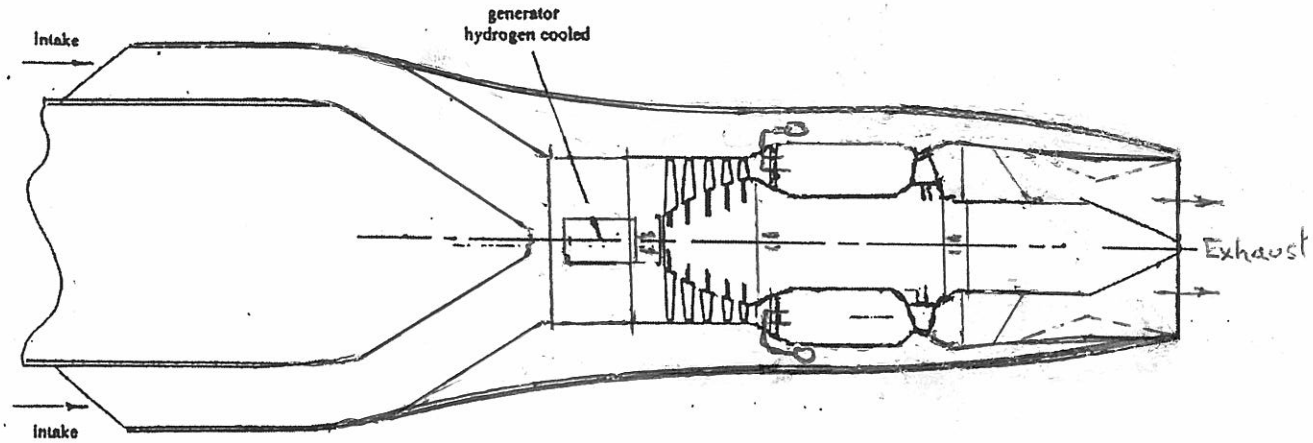
THE SUPERSONIC TRANSPORT - CRUISING AT MACH 3

Designed by J Varney – Aug 25th. 2011

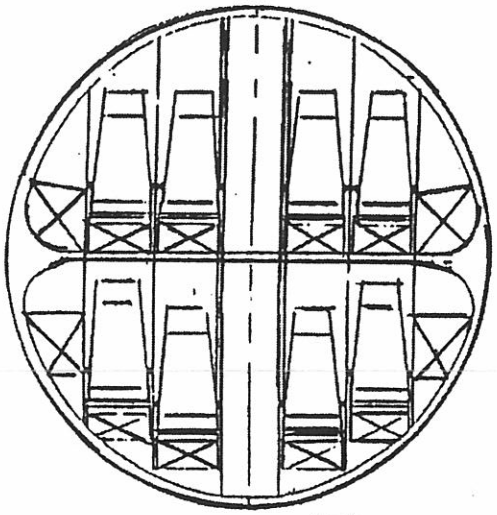


No windows (TV in each seat back to view passing terrain)





PLAN OF SINGLE PLASMA TURBOJET ENGINE INTEGRATED WITH FUSELAGE



CABIN SECTION

Supersonic Transport data

Number of passengers - 200 on 2 decks
Range at mach 3 cruise - 12,000 miles
Construction – carbon composites
All-up weight – 220000 lbs
Hydrogen fuel tank capacity-800 lbs
Length - 170 ft. Fuselage O D 168 inches
Wing span – 85 ft. Wing area - 2420 sq.ft.