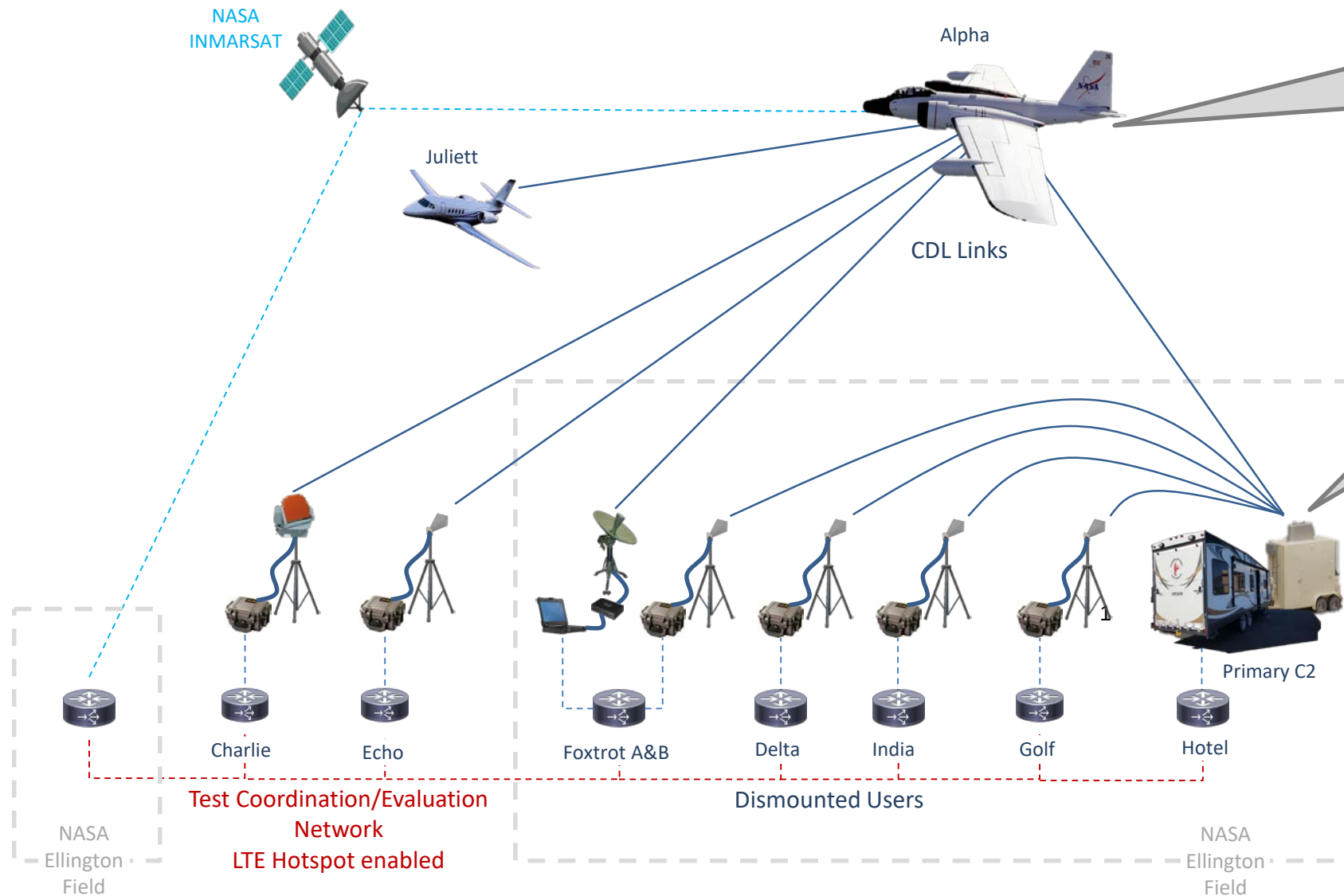


2020 Halo Flight Test – Summary Plan



Halo Flying
Prototype
Demonstrator



Halo Ground
Node
Demonstrator

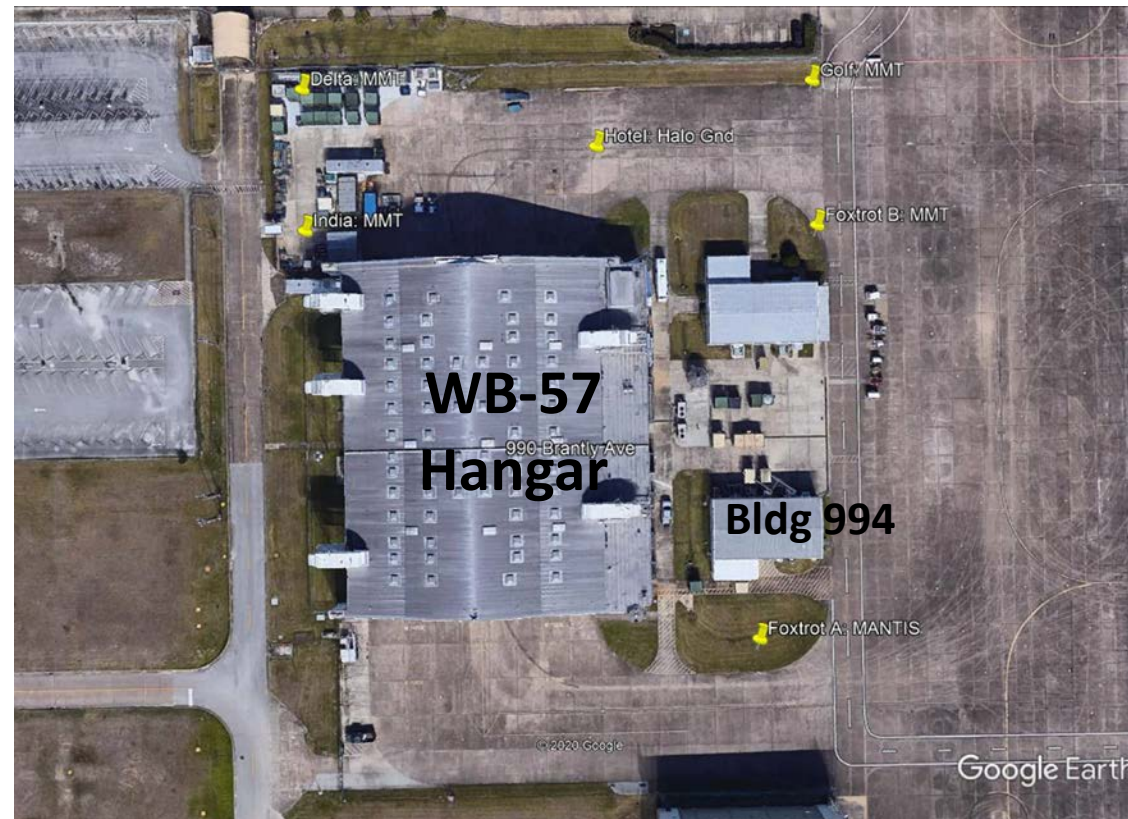


Key Demo Effects

- 5+ simultaneous CDL links
- Air-to-Air & Air-Ground Links
- Frequency Re-Use
- Mesh Networking Concepts
- Autonomous Acquisition

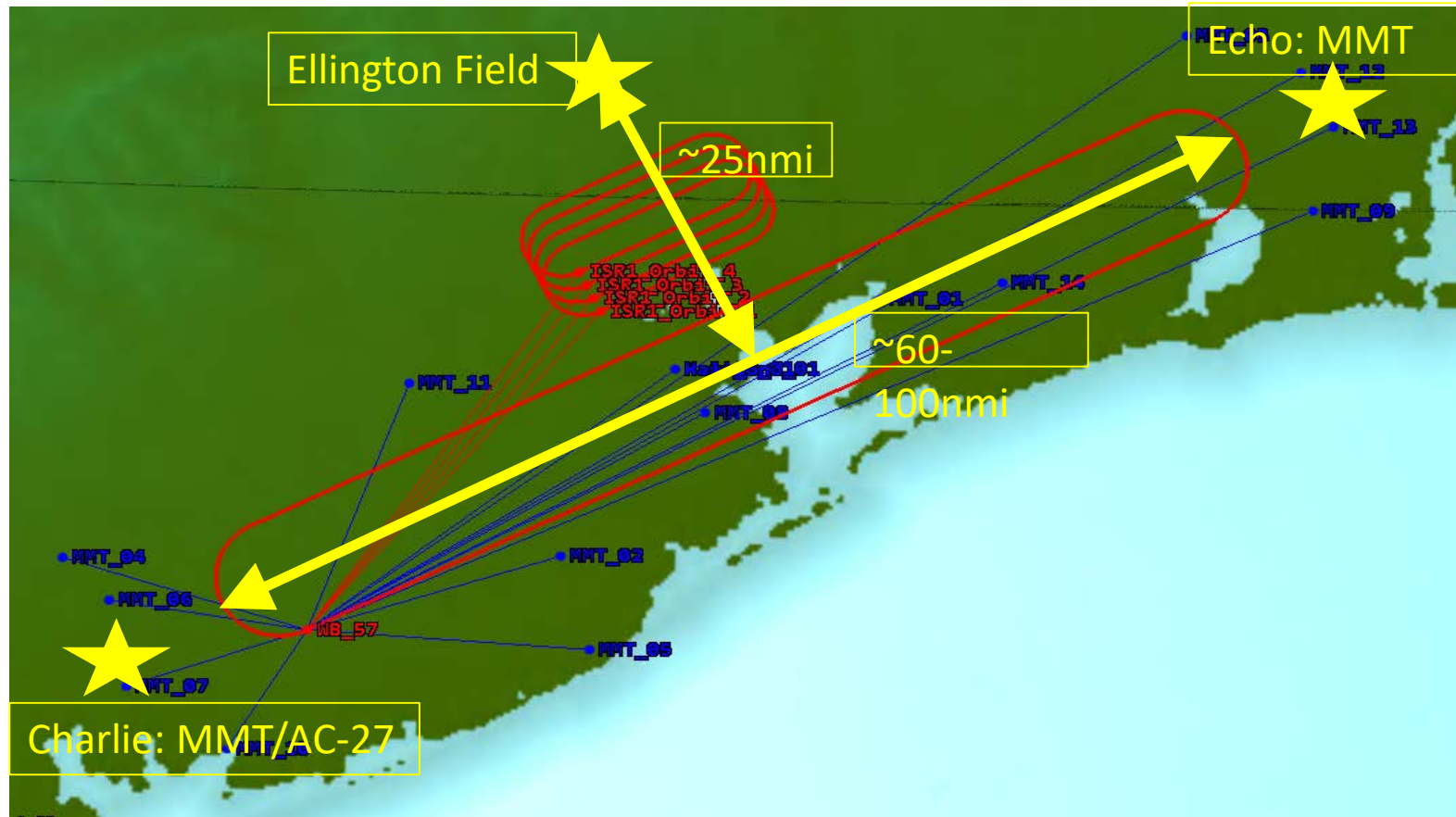
Halo2 Gnd Nodes - Ellington

	Delta	Foxtrot A	Foxtrot B	Golf	Hotel	India
Latitude	29°36'35.02"N	29°36'31.19"N	29°36'34.08"N	29°36'35.09"N	29°36'34.62"N	29°36'34.03"N
Longitude	95°10'11.64"W	95°10'7.97"W	95°10'7.51"W	95°10'7.55"W	95°10'9.28"W	95°10'11.62"W
Elevation	30 ft	30 ft	30 ft	30 ft	30 ft	30 ft



Halo2 Cnd Nodes - Field

	Charlie	Echo
Latitude	28°50'39.71"N	30°11'26.99"N
Longitude	96°27'50.99"W	93°34'52.56"W
Elevation	39 ft	16 ft



	Alpha	Charlie	Delta	Echo	Foxtrot A	Foxtrot B	Golf	Hotel	India	Juliett
Modem/Antenna	Halo	MMT/AC-27	MMT/Horn	MMT/Horn	MMT/HD-30T	MMT/Horn	MMT/Horn	Halo	MMT/Horn	MMT/Horn
Psat (dBm)	50.4	41.8	41.8	41.8	35.9	41.8	41.8	50.4	41.8	41.8
Psat (W)	109.6	15.1	15.1	15.1	3.9	15.1	15.1	109.6	15.1	15.1
Tx Losses (incl backoff)	9.7	12	12	12	4.3	12	12	9.7	12	11
Antenna Gain	22.6	27	20	20	39.8	20	20	22.6	20	4
EIRP (dBm)	63.3	56.8	49.8	49.8	71.4	49.8	49.8	63.3	49.8	34.8
EIRP (W)	2100	478.6	95.5	95.5	13800	95.5	95.5	2100	95.5	3
Transmit Freq Band (GHz)	14.47-14.82	15.18-15.335	14.47-14.82	14.47-14.82	15.18-15.335	14.47-14.82	14.47-14.82	15.18-15.335	14.47-14.82	15.18-15.335