

# AMSAT SA Es'hail-2 Geostationary Satellite Project



## BACAR 10 GHZ BEACONS



An IARU Region 1 Event Hosted by the South African Radio League

# ES'HAIL-2: AMATEUR RADIO'S FIRST GEOSTATIONARY SATELLITE

- Circular orbit above the equator
- Orbital period is equal to the Earth's rotational period
- Satellite thus appears motionless to ground observers
- Can only happen at an altitude of 35 786 km above mean sea level



# ES'HAIL-2

View from 25.5° E



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# ES'HAIL-2: FOOTPRINT

- Will cover a population of 5,2 billion people
- Nearly 1,5 million Radio Amateurs
- 225 DXCC entities



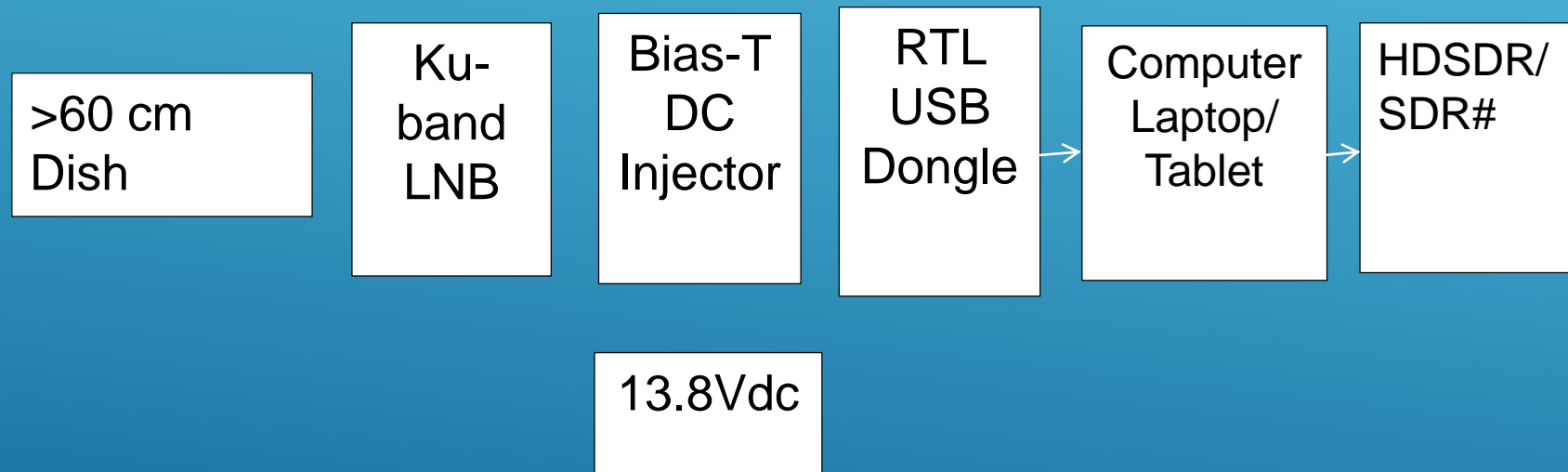
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# ES'HAIL-2: LINEAR HAM TRANSPONDER

- 2.4 GHz Uplink
- 10.489 GHz downlink
- Preferred modes will be SSB and CW



# ES'HAIL-2: POSSIBLE RECEIVE SOLUTION



# BACAR 10 GHZ BEACONS

- Test signals for an Es'hail-2 receiver chain
- 10.4908 GHz Wideband FM beacon
- 10.489 680 GHz high precision CW beacon
- 8 mWatt TX power
- Track balloon by pointing LNB for maximum signal on the waterfall display
- Promise to be lots of fun

