

#### HF Hardware life-cycle replacement

- Rohde Schwarz selected as supplier for transmitter receiver and antennae replacement.
- > Transmitters:
  - ➤ 4 x 2kw Volmet/Metfax
  - ➤ 2 x 4kw HF Voice
- > TCI Multimode Spiral Antennae
- ➤ Hardware replacement in parallel with upgrade to airground operators "air-log" interface and their Remote Control System (RCS) with the transmitters.
- Completion date for project by February 2016



### **Balloon Operations**

- Google Loon
  - Working towards new launch program in May 2015
  - Numbers unknown
  - Google developing new generation balloon.
  - Developed a message set to facilitate balloon management in NZZO (Refer IP 07)
- KuangChi Science
  - Launching 2 test balloons in April/May 2015
  - > 200kg payload operating around 80,000ft
- > NASA
  - > Launching a one off in March operating around 110,000ft
  - > Initial launch has test payload but capable of 2 tons



# Google Loon

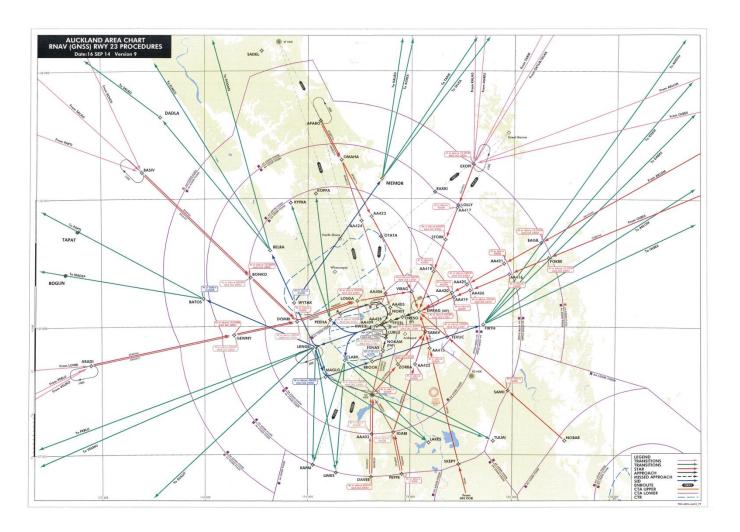


### **ATM Replacement**

- > Airways operates two ATM systems:
  - OCS Oceanic Operations operational in 2000
  - Skyline Domestic Operations operational in 2003
- Airways is investigating options for ATM system replacement which may include a single ATM system for both Oceanic and Domestic operations.
- > RFI expected to selected vendors in 2014.



## **New Auckland SIDs**



#### **New Auckland SIDs**

- To be introduced in April
- Improved efficiency.
- Return of the short stars in May.