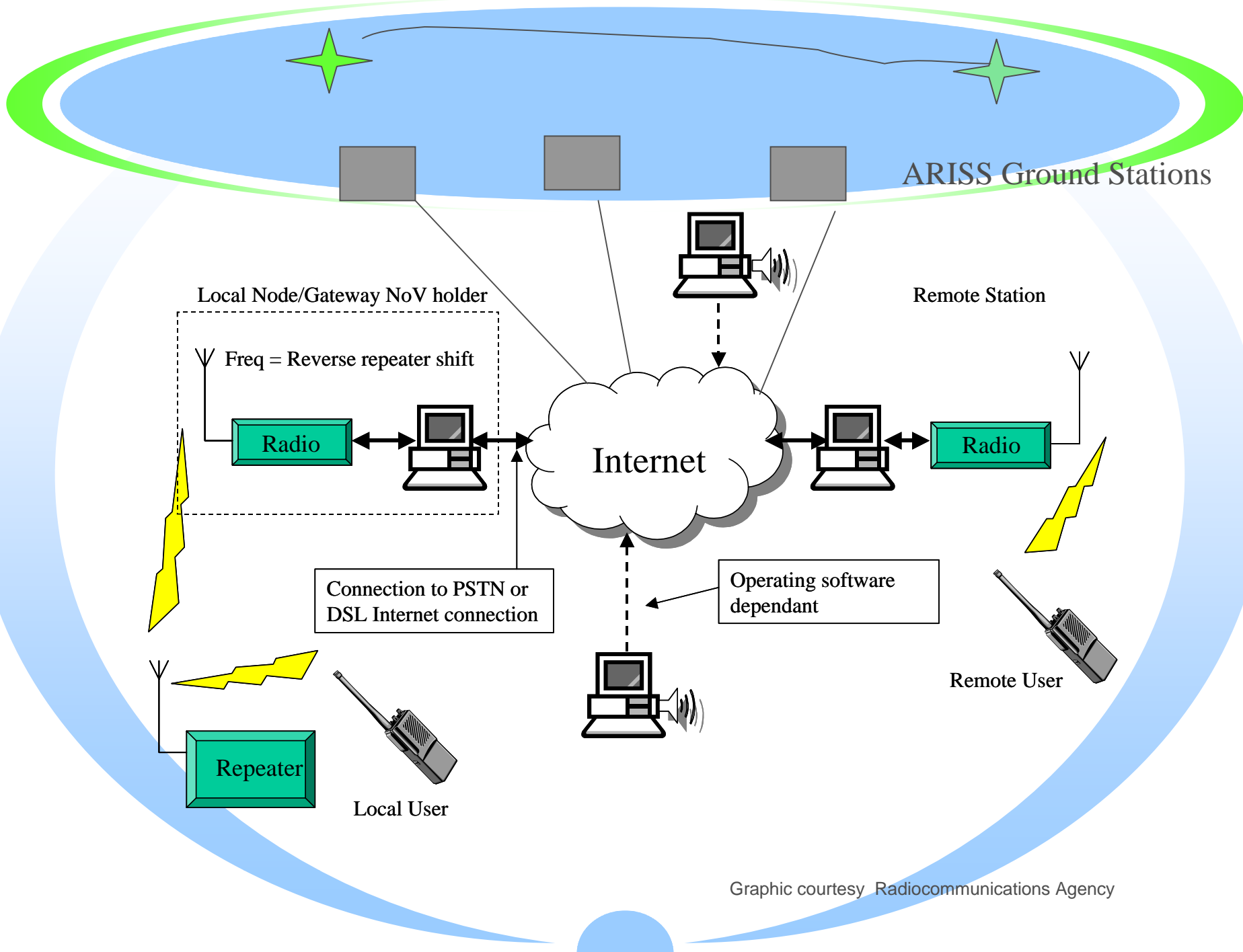# ISS Link -- Update
Linking the ISS to the Internet

Presented at ARISS October 2004
by Scott H. Stevens, N3ASA

Connecting Radio over IP

- EchoLink
  - Multiplatform internet linking
  - Computer centric
- IRLP
  - Linux based connected repeaters
  - Radio centric

ARISS Ground Stations

Local Node/Gateway NoV holder

Freq = Reverse repeater shift

Radio

Internet

Remote Station

Radio

Connection to PSTN or
DSL Internet connection

Operating software
dependant

Remote User

Repeater

Local User

Graphic courtesy Radiocommunications Agency

ISS Link Purpose
Phase 1

- **Use EchoLink/IRLP to expand ARISS QSO audience**
  - Feed QSO audio into an IRLP reflector or an EchoLink conference room for redistribution
  - Replay most recent QSOs
  - Bulletin Board type notices

Funding, Training, Timeline

- No funding initially
  - Volunteer ground stations supply hardware/internet connection
  - Software is FREE
- Training impact on ISS crew: NONE
- Ground crew training needed
- Time to use: within 3 months of test phase ending

Current Status

- Each Method demonstrated for an audience
  - EchoLink successfully redistributed via AMSAT conference room for Challenger Learning Center at Prairie Aviation Museum, Illinois contact, approx. 50 connects
  - IRLP demo successful on Adelaide, Australia contact
    - Audio levels excellent!
    - Persistently streamed audio presents time-out challenge
- Both demos set up quickly!
- Upcoming IRLP presentation by the IRLP team via Net Meeting to be held Oct. 19, contact n3asa@amsat.org if delegates/ops want to join in.

Technical Status

- IRLP group will resolve IRLP timeout issue
- Both need to work on developing feeds from QSO to point of redistribution
  - Connection equipment involved
  - Implementation involved
- Both need to settle on teams of N. American volunteers
- Ops/mentor training will be needed (Net Meeting)
- **Security: Users verified, specified calls only allowed in during QSOs**

Thank you

Canadian IRLP Project

Wayne Harasimovitch, VE1WPH

Robert L. Ewert, VE1KS

EchoLink

various

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