AMSAT @ PACIFICON 2012

AMSAT.EDU
ARISS Outreach
at the ARRL National Convention
Joe Spier, K6WAO
EMike McCardel, KC8YLD
AMSAT.Edu Goals

- Foster new educational outreach for ARISS
- Create data resource for ARISS school contacts
- Enhance ARISS Mentor program
- Create deployable kits for ARISS contacts
- Provide the educational component for NASA outreach to insure future launch opportunities
AMSAT.Edu Goals

• PACIFICON 2012
  – Foster new educational outreach for ARISS
    • PACIFICON 2012 = Amateur Radio Outreach
  – Create data resource for ARISS school contacts
  – Enhance ARISS Mentor program
    • Needed to understand ARISS Program
    • Learn by doing
So, you want to have an ARISS Contact?
ARISS Application

- AMSAT had to submit an application, just like every other contact
- Application is sent to the Teaching From Space, Education Office for submission to ARISS
- Multi-part Application – 7 page minimum.
ARISS Application

• Application Review
  – Mark Hammond, N8MH
  – Barry Baines, WD4ASW
  – Joe Spier, K6WAO

• Applicant Review
  Webinar Teleconference
  – If you can’t use the mute button, your likelihood of a contact diminishes

• Submission to the NASA-Teaching From Space Office, Trinesha Dixon
Application By-Products

• Must represent organization
  – Membership in Mount Diablo Amateur Radio Club MDARC (PACIFICON host)
  – PACIFICON 2012 Committee Chairman for ARISS/AMSAT Forum
    • Monthly meeting in Concord, CA
ARISS Chair Duties

• ARISS Co-Ordination
• NASA Co-Ordination
• Event Co-Ordination
  – Youth/Question Selection Subcommittee
• Youth / Education Co-Ordination & Outreach
• AMSAT Co-Ordination
  – AMSAT assisted with any ARRL Co-Ordination with ARISS Contact
ARISS Application Approval

• 60-90 days after submission, approval notice was given
• ARISS Mentor assigned a few weeks later
  – Kerry Banke, N6IZW
• Contact is not guaranteed, many variables must be accounted for before contact may occur.

• Variables
  – Orbital Mechanics at contact time
  – Crew Schedule
  – No contacts during week if:
    • Progress spacecraft mission is schedule
    • ISS must change altitude
    • EVA scheduled
    • Direct/Telebridge alignments
PACIFICON 2012

- Internal changes within the Pacificon committee
- Youth Chair duties changed
- Scouting not involved until last 6 weeks
- Outreach was non-existent
- ARISS Contact and Outreach became AMSAT’s challenge
PACIFICON 2012 Outreach

1. Offered question slots to MDARC members through PACIFICON Committees
   - Three slots confirmed
   - Scouts were to have 7 slots, Scouting co-ordination was late/outreach was scheduled for week after questions were due

2. Offered question slots to Rio Linda High School
   - Carolyn Spier, KF6JQE
   - Issues with School, District Approval & Format of Distributed Materials
   - No slots confirmed

3. Contacted by parent at Brooks Knoll Elementary in Bay Area
   - Initial contact was for 1 slot
   - Parent was willing to work with school on ARISS contact.
   - Issues with School, District, Materials, and Contact Time being on a weekend.
   - Parents banded together to enable youth to participate as non-school activity
   - Parents were provided with outreach websites and release forms
   - 18 slots confirmed
PACIFICON 2012 Outreach

- Youth Programs
- “Youth Lounge” in the Exposition Hall
  - Satellite Simulator
  - Orbital Mathematics
  - CubeSat Model
- Portable Satellite Station
  - Tom Deeble, KA6SIP
  - Live Contacts throughout the weekend using W1AW/6 call
PACIFICON 2012

- Notified Astronaut Lee Morin, MD, PH.D, Capt., USN, KF5DDB would attend the ARISS Contact
- AMSAT/ARISS Forum finalized
PACIFICON 2012 AMSAT Forum

- Barry Baines WD4ASW
  - "AMSAT President's Message on the Future of Amateur Radio in Space"
- Mark Hammond N8MH
  - "AMSAT Educational Report from the UK and Beyond"
- International Space Station OR4ISS
  - "ARISS Contact"
- Astronaut Lee M. Morin, KF5DDB (M.D., Ph.D. Captain, USN)
  - "An ISS Astronaut's View"
- Joseph Spier K6WAO
  - "ARISS Contact (Replay)"
- Joseph Spier K6WAO
  - "Introduction to Satelite Earth Station Operations"
• September 15, 2012
  – Telebridge contact due to “Its Physics, Man”
  – Keps finally recomputed.
  – ISS will be over Europe or Australia
  – Choose Telebridge times
  – Assigned Telebridge Station - IK1SLD, CLAUDIO ARIOTTI
  – Assigned ARISS Moderator
  – VK5ZAI J.A. (TONY) HUTCHISON

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PACIFICON 2012

• 10/01/2012
  – Contact is a Go!
  – Need Questions
• 10/02/2012
  – Primary Aki
  – Secondary Suni
• 10/03/2012
  – Questions Submitted
• 10/09/2012
  – Final Confirmation
  – Space-X Dragon launch will not interfere
PACIFICON 2012

• Media Outreach
  – Approved by AMSAT
  – Approved by ARISS
  – Changed by ARRL

• 24 hr. email notice to ARISS & AMSAT
  – Notified to read PACIFICON description before contact
  – Last minute technical glitches with telephone lines (working automated satellite station in room)
ARISS Contact (Video)
Media Hits

- San Jose Mercury News
- ARRL New (Front Webpage)
- AMSAT News Service
- HamNation Episode 69
- PACIFICON 2012 website
- Possible QST Article
AMSAT.Edu

• Future contacts
• Dale Hunzeker – Monrovia H.S.
• EMike – Home School Consortium, Ohio
• EMike - Powell, WY where my daughter teaches.
• Onward!