



AMSAT @ PACIFICON 2012

AMSAT.EDU

ARRL 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

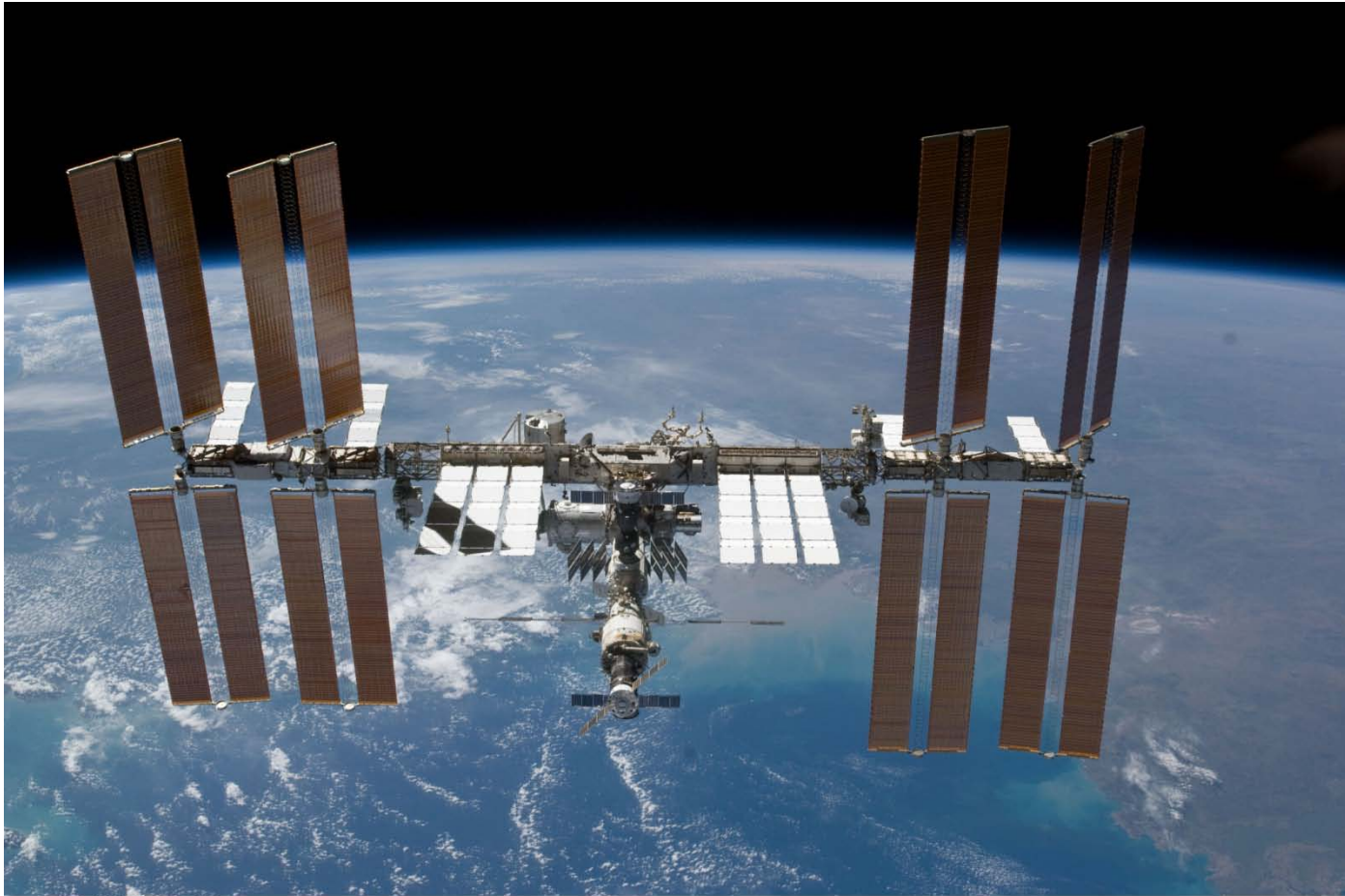


AMSAT.Edu Goals



- 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

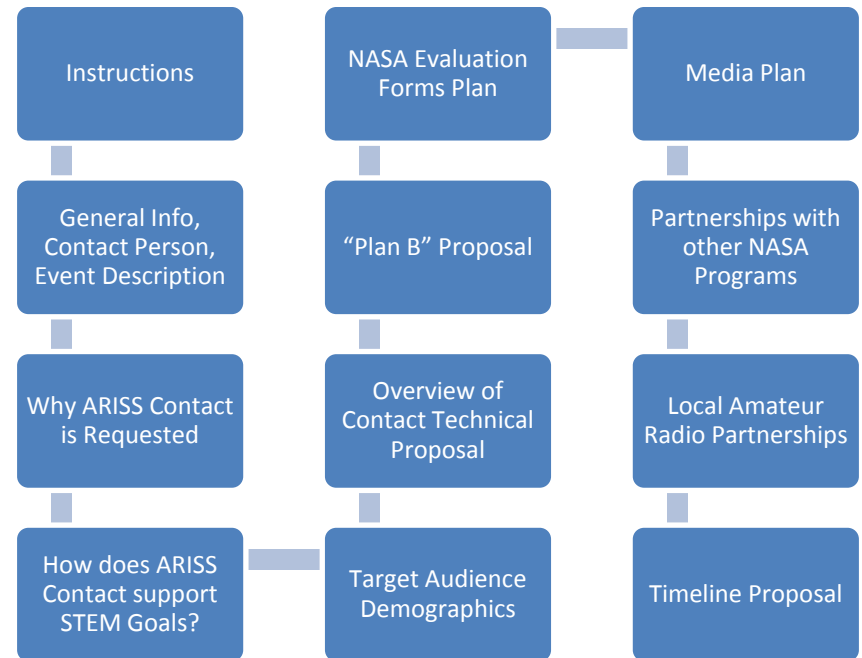
So, you want to have an ARISS Contact?



S130E012150

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.



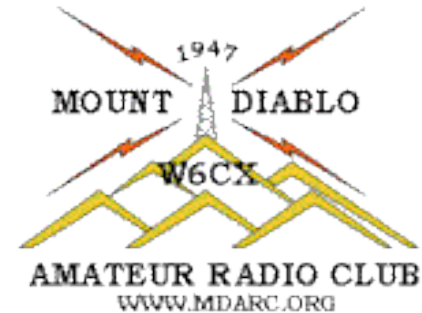
ARISS Application



- 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



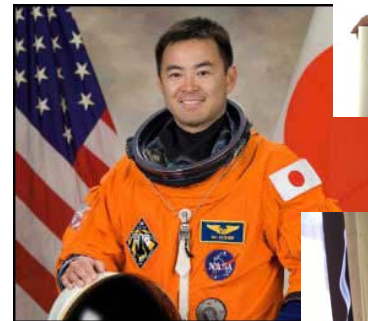
PACIFICON 2012



- 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 Satellite Earth Station Operations"



PACIFICON 2012

- 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

- ISS passes for Telebridge stations - week 3 (Oct 12-14)
-
- |----- UTC -----| |----- PDT -----|
- DATE RISE SET RISE SET EL GEO ORB STATION
- <Fri 12Oct12 17:42:19 17:53:22 286/10:42:19 10:53:22 69 A-E 3627 LU8YY
- <Fri 12Oct12 18:10:09 18:21:04 286/11:10:09 11:21:04 62 A-E 3628 IK1SLD
- <Fri 12Oct12 18:47:39 18:58:19 286/11:47:39 11:58:19 71 D-E 3628 VK4KHZ
-
- <Sat 13Oct12 16:53:19 17:04:06 287/09:53:19 10:04:06 36 A-E 3642 LU8YY
- <Sat 13Oct12 17:21:14 17:31:57 287/10:21:14 10:31:57 37 A-E 3643 IK1SLD
- <Sat 13Oct12 17:58:53 18:09:04 287/10:58:53 11:09:04 28 D-E 3643 VK4KHZ
- <Sat 13Oct12 18:57:50 19:08:41 287/11:57:50 12:08:41 43 A-W 3644 IK1SLD
-
- <Sun 14Oct12 16:32:28 16:42:43 288/09:32:28 09:42:43 23 A-E 3658 IK1SLD
- <Sun 14Oct12 17:40:52 17:51:31 288/10:40:52 10:51:31 33 A-W 3658 LU8YY
- <Sun 14Oct12 18:08:34 18:19:33 288/11:08:34 11:19:33 61 A-W 3659 IK1SLD
- <Sun 14Oct12 18:46:22 18:56:30 288/11:46:22 11:56:30 25 D-W 3659 VK4KHZ

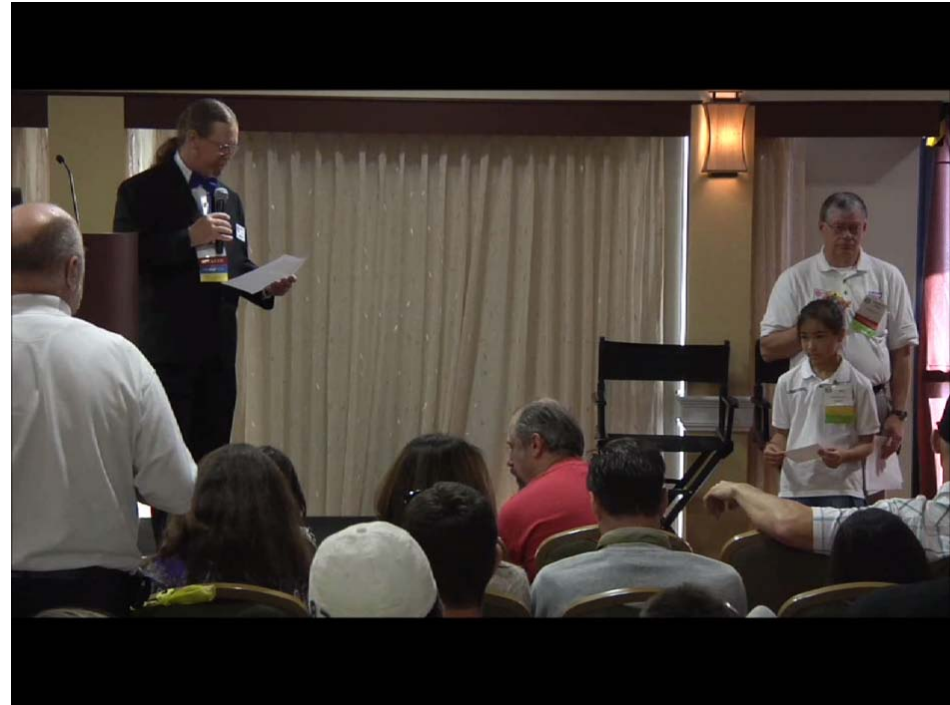
PACIFICON 2012

- 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

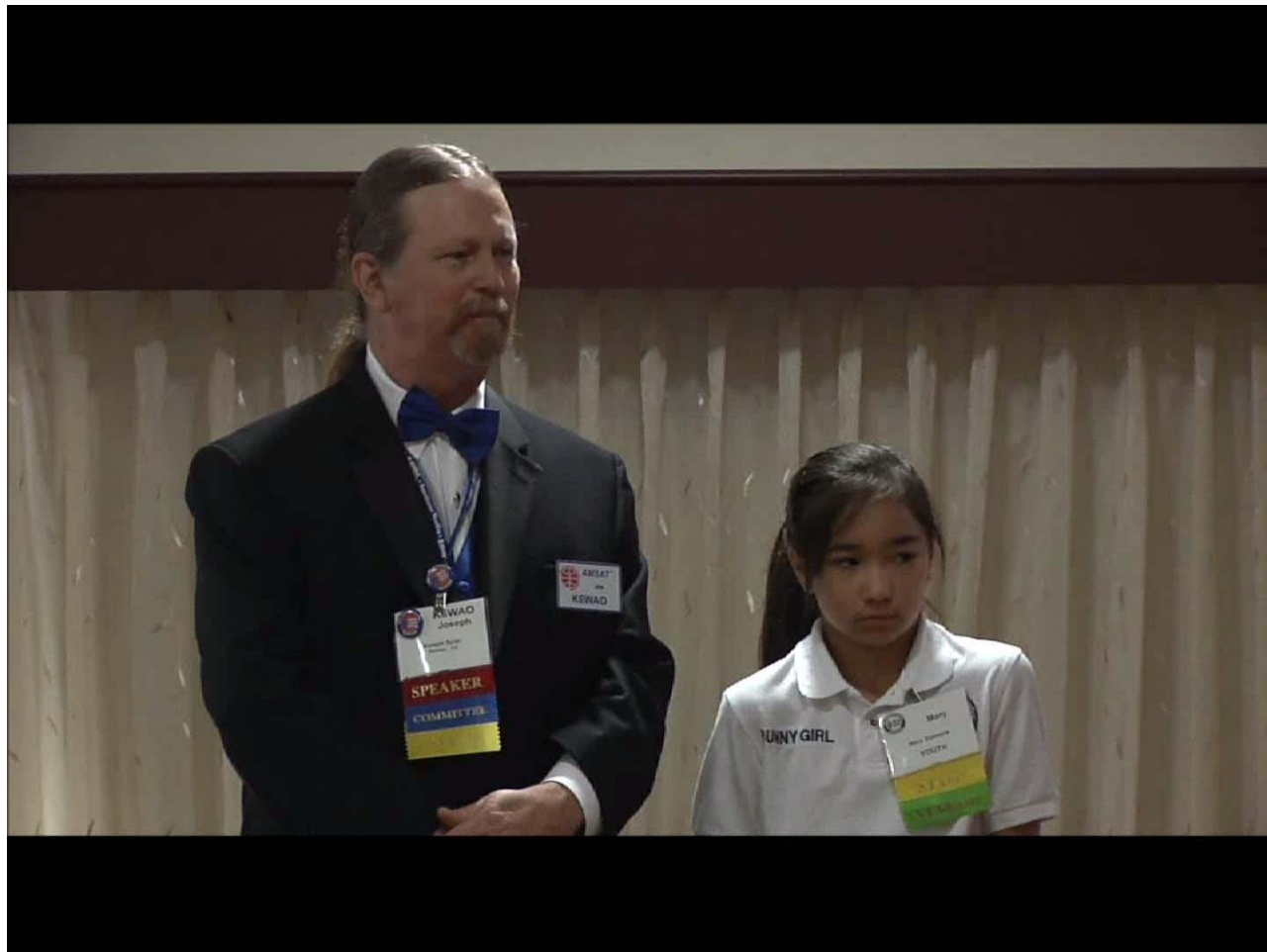


PACIFICON 2012

- 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!

