



ARISS OPERATIONS UPDATE

1 September 2010 – 30 September 2011

EXPEDITIONS:

24 thru 29

by

Keith Pugh, W5IU

10/24/2011

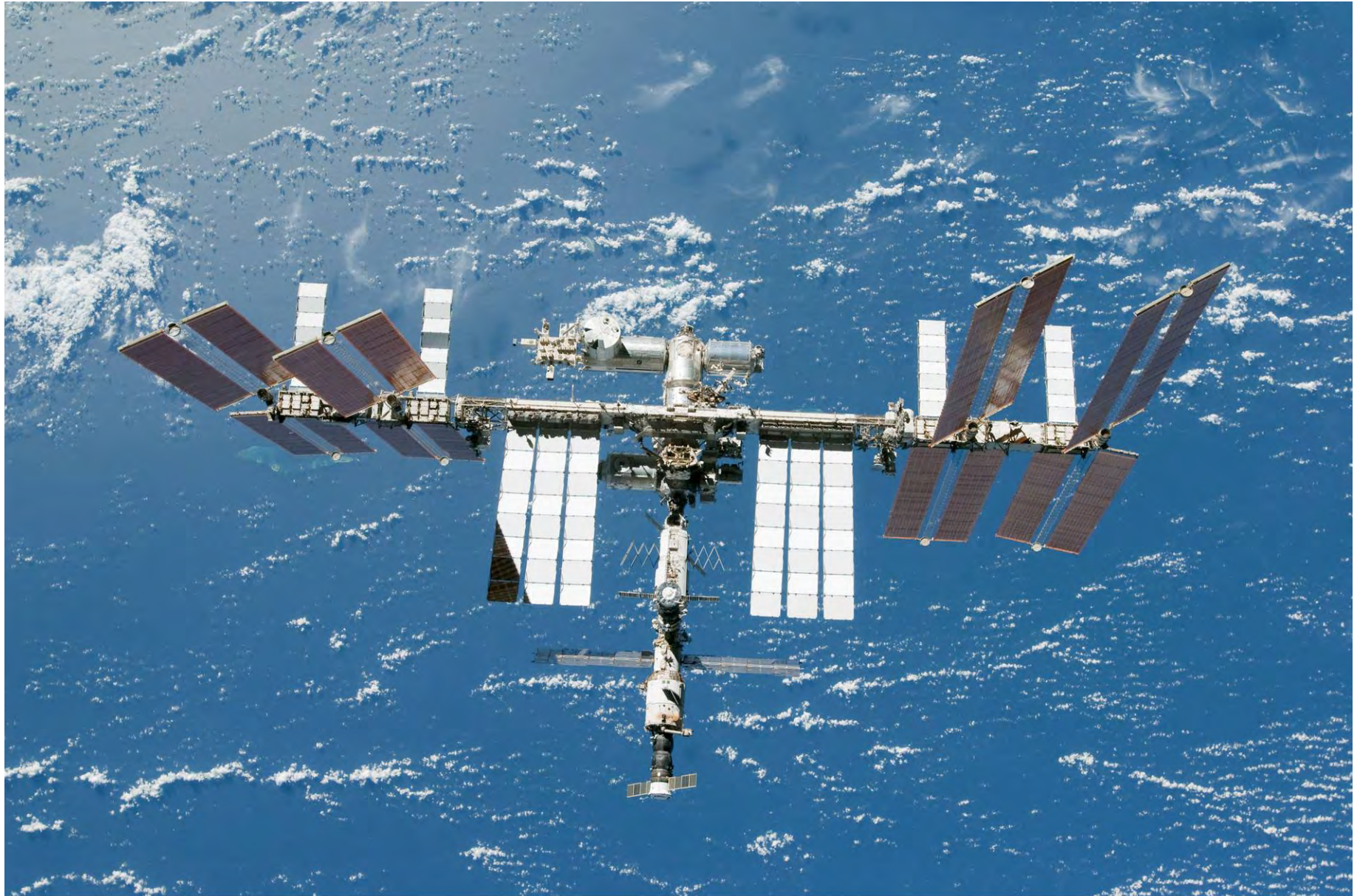
Purpose and Objectives of ARISS

- Primary – Promote education of our youth in math, the sciences, engineering, and technology.
- Secondary - Expose students and others to the world of Amateur Radio and the many benefits of this fascinating avocation.

Implementation

- Working with professional educators worldwide and with the Space Agencies of the world, ARISS provides opportunities for students of all ages to talk and exchange ideas with Astronauts on board the International Space Station (ISS) while in orbit. Amateur Radio provides the media for this exchange to occur and the volunteers that facilitate the primary purpose.

ISS NOW COMPLETE – Hosting 3-6 Person Crew Operations



S130E012100



ISS005E05871

PROGRESS SUPPLY SHIP

ARISS Organization

- **Founders - Roy Neal (SK), K6DUE; Frank Bauer, KA3HDO; Rosalie White, K1STO; Lou McFadin, W5DID, and Matt Bordelon, KC5BTL.**
- **ARISS International Working Group - delegates from Canada, Europe, Japan, Russia, and the USA.**
 - **Radio Amateur Satellite Corporations (AMSATs) of the world**
 - **National Amateur Radio Organizations (such as ARRL)**
 - **Space Agencies of the world (NASA, CSA, ESA, JAXA, & ROSCOSMOS).**

Recent Changes

- Dave Taylor, W8AAS, appointed to AMSAT-NA slot by Barry Baines, WD4ASW, President of AMSAT-NA, in Sept. 2010

School Contacts this Year!

- 108 Contacts Involving 10 Astronauts – 5 Expeditions
- 116 Events (Schools)

<u>Expedition</u>	<u>Astronaut</u>	<u>Callsign</u>	<u>Nationality</u>
28-29	Michael Fossum	KF5AQG	USA
28-29	Satoshi Furukawa	KE5DAW	Japanese
27-28	Ronald Garan	KF5GPO	USA
27-28	Andrey Borisenko	RS0ISS	Russian
27-28	Aleksandr Samokutyay	RS0ISS	Russian
26-27	Catherine Coleman	KC5ZTH	USA
26-27	Paolo Nespoli	IZ0JPA	Italian
26-27	Dmitry Kondratyev	RS0ISS	Russian
24	Doug Wheelock	KF5BOC	USA
24	Shannon Walker	KD5DXB	USA

Paolo Nespoli is School Contact Winner this Year!

Contacts by Region/Country

• USA			21
• Canada			5
• Europe			49
– Italy	32	N. Ireland	1
– France	2	Portugal	1
– Germany	3	Norway	2
– Poland	3	Luxemburg	1
– Belgium	1	Spain	2
– Switz.	1		
• Russia			12
• Japan			9
• Australia			6
• Argentina			1
• New Zealand			1
• Malaysia			1
• Peru			2
• India			1

Schools vs Groups

- Organized Schools – During their school year
- Other Groups – In the “off” season.
 - Scout Groups
 - Summer Camps
 - Hospitals
 - Others
- ***General Ham Contacts!***
 - ***Doug Wheelock is “King” this year!***

This Kirolí banner was flown aboard the Space Shuttle Columbia, STS-65, July 8-23, 1994, during which materials and life science experiments were conducted as part of the Second International Microgravity Laboratory (IML) mission.

NASA Astronaut James D. (Jim) Halsell, Jr., an alumnus of Kirolí Elementary School, was the Pilot on STS-65, his first space mission.



West Monroe, Louisiana



Father & Son Team



Kiroli Elementary Kids





Kiroli – Action!



Walnut Creek Elementary – *Calling and Listening!*





**Walnut
Creek
Elementary
Azle, TX**

Girl Guides of Canada





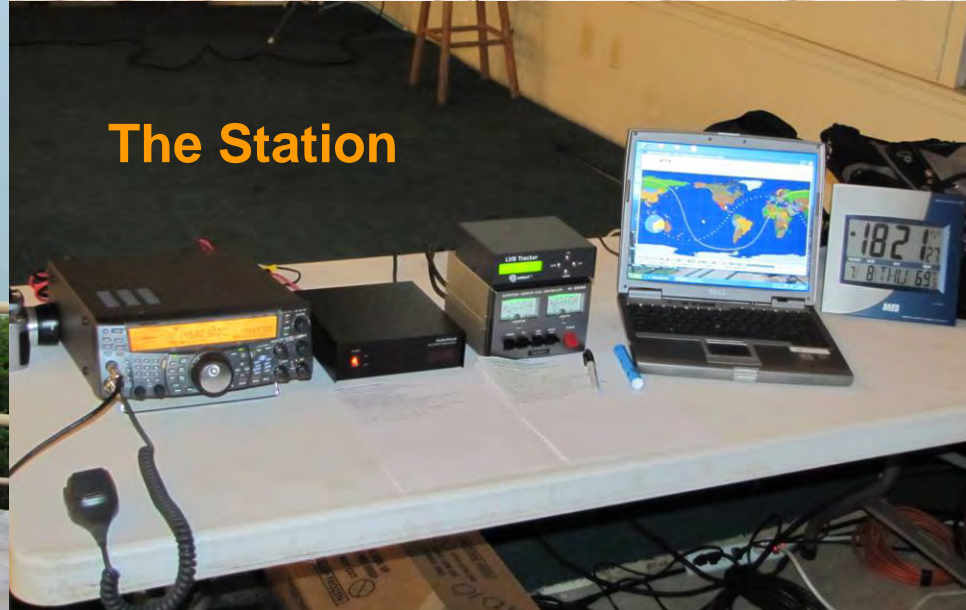
Camp Cavett
Lake Texoma, OK



The Crew



The Station





The Crowd



The Questions



The Media



Camp Cavett
The Line Up

Col. Doug Wheelock, KF5BOC – *“General Contact King”*



ISS024E013398

ARISS Operations

- ARISS Operations Team
 - ARISS Mentors,
 - Scheduling/Technical Representatives,
 - Orbital Prediction Specialist.
 - ARISS Operations Lead is selected from within the ranks on a periodic basis.
- Group meets weekly by telephone conference and much more frequently via e-mail and telephone.

ARISS Operations (cont.)

- Applications & Sequencing
 - Crew Pick
- Direct vs. Telebridge
- Best Weeks
- Pass Options
- Final Selection
- Telebridge Station Selection/Verification
- Telebridge Moderator

Telebridge Network

- One new station added
 - IK1SLD – Claudio Ariotte - Italy
- One returned in Australia
 - VK6MJ – Martin Diggins – Perth
- Other new ones under consideration
 - South Africa, Canada, Alaska, Portugal, Uruguay, Italy

TELEBRIDGE STATION LOCATIONS



ARISS Mentors Worldwide

- VK5ZAI - Tony
- VK4KHZ - Shane
- N6IZW - Kerry
- ON4WF - Gaston
- W6MU - Tim
- K5YFL - Gene
- G0AKI - Carlos
- VE1WPH - Wayne
- IN3GHZ - Peter
- G6LVB – Howard
- W8AAS – Dave
- N9CHA - Greg
- W5IU - Keith
- VE3TBD - Steve
- KB9UPS - Steve
- ZL2SJ - Peter
- RV3DR - Sergey
- AG9D - John
- AJ9N - Charlie
- 7M3TJZ - Satoshi
- IK0WGF – Francesco
- N5VHO – Kenneth
- AA4KN – Dave

THANKS!

- Operations Leads (Six Month Rotation Plan) – Keith, W5IU, Tim, W6MU, & Dave, W8AAS
 - Next Operations Lead is TBD
- NASA Rep – Kenneth, N5VHO
- Web & Statistics – Charlie, AJ9N
- Orbital Predictions – Gil, WA5NOM
- **ARISS Mentors *Worldwide*** – See separate list
- Telebridge Stations – See Map
- VOIP Coordinators – Graham, G7EVY; Wayne, VE1WPH; John, AG9D
- NASA Reporting – Rita, KC9CDL; Clint, K6LCS
- Press Releases for Contacts and Other PR – David Jordan, AA4KN

Plans for the Future

- ARISSat-1/KEDR
 - In Orbit and Operational!
- Columbus Module
 - L & S Band Antennas in place
 - VHF/UHF Antennas in place
 - Use of Ericsson hardware approved and tested. Resolving Issues.
 - Increased Operations from Columbus while retaining current capabilities.

Summary

- Expect more activity than ever before with a full six person crew
- Adapt to New US Selection Process
- *Help bring forth new generations of people with an expanded knowledge of science, space, and technology – if we don't, who will be interested in and be members of AMSAT in 20 years.*