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Redaktionelt

ØV – det kan de ikke være bekendt. Nu havde jeg lige glædet mig til at få en satellit i fødselsdagsgave her den 30. september, og så udsætter de opsendelsen af SSETI-Express på ubestemt tid. Efter de sidste rygter i mindst en måned.

Nå – det har vi jo prøvet før. ØRSTED blev udsat 10 gange, men endte med at blive en succes i sidste ende. Lad os håbe at SSETI-Express bliver det samme.

Det har været meget nemt at følge med i opsendelsesforberedelserne på hjemmesiden med URL:

<http://sseti.gte.tuwien.ac.at/express/mop/?uri=news.html>

Ud over den side kan man med fordel kikke ind på Aalborg Universitets tilsvarende side:

[http://www.express.space.aau.dk/?language=da&page=h
ome](http://www.express.space.aau.dk/?language=da&page=home)

Der er nu også fordele ved udsættelsen. Det giver os tid til at få testet vores jordstation på Ingeniørhøjskolen i København op mod kontrolcenteret i Aalborg. Det er i øvrigt en sand fornøjelse at se, hvor store signaler, man kan modtage med en parabol med 7 meters diameter. Det gælder både på 70 cm og på 2,4 GHz. På den IC-910H, som vi bruger, viser S-meteret S – 9 + 60 dB og over det, så vi skal nok høre satellitterne, hvis de overhovedet virker. Eneste problem er at få antennen til at pege den rigtige vej. Ikke fordi den ikke kan det – men mere om de kepler elementer, vi får, kan være behæftet med fejl.

OZ7SAT gruppen har lavet et fremragende arbejde med vores jordstation.

OBS – opsendelsen er nu sat til den 27. oktober. 0652 UTC eller dagen efter.

Der er meget tekst på engelsk denne gang. Der var ikke tid til oversættelser. Håber det går ☺ OZ1MY

Informationssider

AMSAT-OZ:

Kontakt AMSAT-OZ på adressen:
AMSAT-OZ
Ingeniørhøjskolen i København.
EIT-sektoren
Lautrupvang 15
2750 Ballerup,
telf: 4480 5133
Ib Christoffersen.
e-mail: oz1my@privat.dk

AMSAT-OZ hjemmeside

Gå ind via: www.eit.ihk.dk
Der er henvisning til AMSAT-OZ
ordbogen.
Eller brug www.amsat.dk

Vores mail server.

Send følgende e-brev:
From: Dit Navn
<oz9xyz@udbyder.dk>
To: <majordomo@amsat.dk>
Subject: hvad som helst
Date: 5. juni 2001 09:26
I teksten:
Subscribe amsat-oz-bb

Indlæg til månedsbrevet.

Inden sidste fredag i måneden til
Erik.

Styregruppe:

Formand, sekretær: Ib Christoffer-
sen, OZ1MY,
e-mail: oz1my@privat.dk
Arrangementsansvarlig: Henning
Hansen, OZ1KYM
e-mail: oz1kym@image.dk
Redaktør: Erik Clausen, OZ9VQ,
erik.clausen@postkasse.org
Internetansvarlig: Lars Jensen,
OZ1FFR,
e-mail: lmjhe@get2net.dk

Indmeldelse

Til adr. ovenfor. 100 kr pr år. Giro
6 14 18 70
Alle indmeldelser gælder for et
kalenderår.

Ældre månedsbreve.

Tidligere årgange af bladene kan
købes for 100kr pr årgang. Vi har

92, 93, 94, 95, 96, 97, 98, 99, 00,
01,02. Henvendelse til OZ1MY.

Software

Fra år 2000 kun ved at downloade
de efterfølgende.

For **faxdiskenes** vedkommende fra
Michaels hjemmeside:
<http://www.kappe.dk>

STATION trackeprogrammet

kan hentes på AMSAT-NA's
hjemmeside under downloadable
software. Hvis du selv vil registre-
re, skal du også downloade regi-
streringsprogrammet.

Trackeprogrammer:

InstantTrak V1.5 registrering, 150
kr. Bestilles hos OZ1MY – sendes
på disk.
STATION registrering er nu gratis,
hvis man gør det selv.
Der er to gode startsteder, AM-
SAT-NA og CelesTrack.
"Station" ligger på AMSAT-NA
nu. Det kører under Windows 3xx,
9X, XP.

Programmer og litteratur fås i
større udvalg hos AMSAT-UK OG
AMSAT-NA og AMSAT-DL.

OZ6BBS

Der ligger meget god info
på 6BBS, 144,625MHz,
433,675 MHz.
Man kan sende P-mail til OZ1-
DMR @ OZ6BBS med ønsker:
Interesse for følgende data: F.eks. -
Spacenews. Opgiv hjemme BBS:
OZxxx@HjemmeBBS
Temaserver: Brug den til at finde
ting om satellitter. Det står under
AMSAT (16 og 17)

OBS

Lokalfrekvenser med satellitsnak i
Københavnsområdet.
Vi bruger 144,775MHz. Husk det
er ikke vores frekvens.

Satellit DX-info

Udsendes på amsat-oz-bb.

425 DX News

Italiensk DX nyheder og bl.a. også
QTH lister, der kan søges på. Ken-
des også fra Packet.
www.425dxn.org/

Hamradio-online

[www.hamradio-
online.com/index.html](http://www.hamradio-online.com/index.html)

AMSAT-SM

c/o Lars Tunberg
Läckövägen 20, 2tr
121 50 Johanneshov
Sverige
e-mail: amsat-sm@amsat.org
Vores svenske venner har et net:
AMSAT-SM net SK0TX på 80m
3740kHz om søndagen kl. 1000
dansk tid. Operatør normalt
SM5BVF, Henry.
<http://www.amsat.org/amsat-sm>
De har også en mailliste, man kan
melde sig til ved at skrive:
amsat-sm-subscribe@egroups.com

AMSAT-UK

Det nemmeste er at gå ind via deres
heres hjemmeside:
www.uk.amsat.org

BLADE:

OSCAR NEWS, medlems-
blad for AMSAT-UK.

The AMSAT Journal,

AMSAT-NA medlemsblad.
AMSAT-NA. 850 Sligo Avenue,
Silver Spring, MD 20910-4703,
USA.

AMSAT-DL Journal

Medlemsblad for AMSAT-DL.
Ernst-Giller-Str. 20
D-35039 Marburg/Lahn
Germany
AMSAT-DL på internet:
<http://www.amsat-dl.org>

Programmer til download.

Gratis trackeprogrammer kan hentes fra AMSAT-NA, der også har enkelte betalingsprogrammer.

Northern Lights Software.

Her er hjemmesiden for NOVA. Kan hente nye udgaver, hvis man er registreret bruger.

<http://www.nlsa.com>

Nova f. Windows sælges også af AMSAT-NA. Pris cirka \$ 60

CelesTrak

<http://celestrak.com>

Masser af Kepler elementer + historisk arkiv.

En del programmer findes også her.

AMSAT-NA postkasse m.m:

Send meddelelse til

majordomo@amsat.org

Det nemmeste er så at skrive:

help nede i teksten. Derefter kommer information om de lister, man kan komme på. Det er automatiseret nu. Hvis man vil i kontakt med et levende menneske, skal man adressere til:

listmaint@amsat.org

De er også på WWW:

<http://www.amsat.org>

ARRL:

<http://www.arrl.org/>

Der er en afdeling, der viser videre til annoncører. Der kan man finde mange ting, man ikke kan undvære.

RSGB:

<http://www.rsgb.org>

DARC:

www.darc.de

Her kan man også finde deres EMC gruppe under
[/referate/emv/emstart.html](http://referate/emv/emstart.html)

Rumfærger.

Her ligger tonsvis af materiale om rumfærgerne og SAREX.

<http://www.acs.ncsu.edu/>

HamRadio/Sarex/index.html

Eller prøv:

<http://www.nasa.gov>

[/sarex/sarex_mainpage.html](http://sarex/sarex_mainpage.html)

Mange henvisninger.

Eller:

<http://shuttle.nasa.gov>

Det kan også betale sig at starte på Dansk Forening for Rumfartsforskning's hjemmeside.

Michaels vejrsatelliteside:

<http://www.kappe.dk>

Den er meget flot – og der kommer meget mere efterhånden.

Links til mange andre vejrsatellitesider.

Kan downloade faxdiske herfra.

RIG.

Remote Imaging Group

PO Box 142, Rickmansworth,

Hearts

WD3 4RQ

England

£12 pr år

<http://www.rig.org.uk/>

index.html

ESA:

<http://www.esrin.esa.it/>

University of Surrey:

<http://www.ee.surrey.ac.uk/EE/CSER/UOSAT/>

SSHHP/sshhp.html

TAPR:

<http://www.tapr.org/>

tapr/index.html

Dansk Selskab for Rumfartsforskning.

<http://www.rumfart.dk>

Der er virkelig mange henvisninger.

Dansk Rumside.

<http://www.rummet.dk>

Leverandører af radioamatørudstyr:**Danske**

<http://home4.inet.tele.dk/dmteknik>

<http://www.werner-radio.dk>

<http://www.betafon.dk>

<http://www.rf-connection.com>

<http://www.edr.dk>

<http://www.norad.dk>

http://home6.inet.tele.dk/oz6fh/Bru_gtliste.htm

<http://www.pulsair.dk>

Udenlandske

<http://www.ssb.de>

<http://downeastmicrowave.com>

<http://www.icomusa.com>

<http://www.icomuk.co.uk>

<http://www.yaesu.com>

<http://www.standard-comms.co.uk>

<http://www.wimo.com>

<http://web.aurecvideo.fr/infracom/db6nt.html>

<http://www.alinco.de>

<http://www.mirageamp.com>

<http://MlandS.co.uk>

<http://www.waters-and-stanton.co.uk>

<http://www.nevada.co.uk>

<http://www.db6nt.com>

G3RUH's hjemmeside:

<http://www.jrmiller.demon.co.uk>

Henvisningsside hos ARRL:

<http://www.arrl.org/ads/adlinks.html>

Space Components:

<http://flick.gsfc.nasa.gov>

radhome.htm

Mange firmaer via:

ALUSOFT:

<http://www.image.dk/~aksel/>

Der er rigtig mange henvisninger, så man kan finde datablade og meget mere.

Interference to the amateur satellite service.

parts of a talk given at the

AMSAT-UK Colloquium 2005

Interference on the 2-meter amateur satellite band.

Since the 2-meter band is a primary band for us, I will concentrate on that band. Listening to satellites it is the 145.800 MHz to 146.000 MHz part I can hear on the satellite downlinks.

Listening to AO-27 over the years has shown problems over different areas of the World. AO-27 has uplink on 145.850 MHz (FM).

Before AO-27 went of air for almost a year, it was on coming from North to South in the afternoon and early evening for 10 minutes.

At that time it was clear that there are telephone networks in the Northern part of European Russia and a lot of taxi drivers (and other transport companies) in Spain using the 2 meter satellite band. An AMSAT-OZ member living in Spain at that time confirmed the Spanish problem.

After the off period matters seem to get worse. Now there is also a lot of interference from the Golf Area (Saudi Arabia – and other states in that region). Also this seems to be very bad on one of the uplink frequencies to AO-51. That is 145.920 MHz (FM).

During Christmas 2004 I made a lot of recordings on the AO-27 downlink to try to see where it came from.

I had a friend who speaks Arabic to listen to the recordings – and according to him it was from the Golf States.

From the dialects he could exclude Palestine, Syria, Lebanon, Iraq and Iran.

From the summer 2004 it has also been possible to use AO-51 to hear the interference, when the CTCSS tone is not needed to open the transponder. To start with this was often the case, when AO-51 was in mode-V/S (2 meter up with 2.4 GHz down).

The findings using AO-51 just confirmed the results from listening to AO-27.

The Japanese satellite FO-29 with a linear transponder is useful as well. The uplink frequency range is from 145.900 MHz to 146.000 MHz.

However FO-29 is a higher orbit and also seems to have less sensitivity, but it is very good because it is possible to scan a 100 kHz range of frequencies.

My findings using FO-29 is that the range around 145.920 MHz is filled up with lots of signals from the regions mentioned before.

Sometimes AO-51 is in QRP mode with uplink on 145.880 MHz and no CTCSS tone. That frequency is much better, but still some QRM from the Golf Area.

A positive thing is that the interference from Spain has more or less disappeared during the year where AO-27 was turned off.

Problem areas I can not reach.

Radio amateurs in Australia and Singapore have complained about interference to the satellite uplinks in the 2-meter band from Indonesia and other countries in that region.

One satellite from Surrey Satellite did a survey of frequencies close to the satellite band on 2 meters some years ago. The region centered around Indonesia was red hot on the display !

In the Americas they have a lot of interference from Mexico and other states to the south of Mexico. During a summer course in Satellite Technology and Communications in 2004 for Mexican students at the Engineering College of Copenhagen, where I work, it became clear to me what happened in Mexico.

As a part of the course the students had to track and listen to a satellite using a handheld transceiver and an Arrows antenna. One of the Mexican students was very familiar with my handheld Yaesu FT-50R. I asked him about that and the answer was that he had one at home for private conversations. According to him it is common to use radio amateur equipment and radio amateur frequencies for that.

CTCSS tone or no CTCSS tone.

The good thing about using a tone to open the satellites is that you do not have to listen to all the interference – the bad thing is that you can not identify the intruders.

If the CTCSS tone is used to preserve power on the satellite, I think it is OK – but if the transmitter is on anyway it is no good.

Listening and transmitting to a satellite where you need the CTCSS tone to open it, the only thing you can do to identify problem regions is by making a note of the amount of power you have to use to open it.

Often it is not possible to open AO-51, when it sees the Golf Area. That is even using 100 W to a 2 x 9 element cross yagi. Once the satellite is clear of that region it is enough to use 5 W or even less.

Interference from other radio amateurs.

The interference from other radio amateurs exists – but it is not real bad any more. The knowledge of the bandplan has obviously improved over the last two years.

We still have the odd radio amateur using the satellite part of the 2-meter band – but it is usually quite easy to convince them of their error. Most times they simply do not know the band plan for the 2-meter band. Once they are told in a diplomatic way they move to other frequencies.

A few years ago I heard 3 to 4 Danish radio amateurs on AO-27 from the start at about the North Pole until AO-27 went down. From the dialect and the mentioning of names of towns I could pinpoint them to the Southern part of Denmark. Then it was very easy to get an AMSAT-OZ member in that part of the country to find them.

As soon as he told them that they could be heard in the whole of Europe, they realized the problem and we have never heard them again on any satellite ☺

We still have problems from the southern part of Europe – but it is not such a large problem as it used to be for some unknown reason. The so-called “ORLA” radio amateurs who try to get through the transponders of the FM satellites are a much larger problem.

May be I should explain what an ORLA radio amateur is. It is a station with a large power on the 2-meter uplink shouting ORLA all the time – but with a real bad receiving system on 70 cm. It is a problem inherent to the mode-V/U (2 meter up and 70 cm down) transponding FM satellites. It is very easy to get into the receiver – but the radio amateur in question may not hear anything including himself on the downlink.

How to find the problem area ?

First of all – keep your tracking program in graphics mode so that you can see the footprint of the satellite in question when you listen.

When you hear interference make a note of the area covered by the satellite – and if possible check when the interference starts and stops. That is the first rule of gathering information of the intruder on our satellite bands.

You may have to listen for many orbits – or many days to be able to “pin-point” the origin of the problem. Actually it is not easy to pinpoint the exact location – but a region will do.

Second rule – learn a lot of languages ☺

You do not have to learn the language – but just enough to be able to distinguish between the different languages – it helps a lot. The language will help us to get to the right authorities in the right country.

Third rule – be patient.

If we get lucky and establish the source of interference it may take years to get them off the band.

Hopefully cooperation with the International Radio Amateur Radio Union Monitoring Service, IARUMS, it will be a little faster.

IARUMS.

One or two years ago IARUMS in Region 1 and Region 2 agreed to take care of frequencies above 30 MHz as well as the HF frequencies.

That is a great step forward since IARUMS has a good record of stopping intruders in the HF bands. Let us hope that this can be extended to the bands above 30 MHz.

Once we get ourselves organized it is time to approach the IARUMS.

Change in the policy of frequency coordination.

During the AMSAT-UK Colloquium 2005 at an informal meeting in the AMSAT-International Forum we talked about changing policy so that no satellite was allowed to have uplink in the 2-meter band.

One good thing about that switch is that we probably get rid of the ORLA operators and another that the problems on the 2-meter band will not cause problems to our satellites.

Using the 2-meter band for downlink makes it much easier to listen since the space loss is about 10 dB less than on 70 cm.

Techniques to alleviate the problem.

During the informal meeting in the AMSAT International group we also talked about techniques to battle the problem.

We agreed to establish two groups. One to record the intruders and to work with IARUMS and one to look at the technical aspects to make our satellites less sensitive to intruders.

The Spies.

So far the information gathering group is made up of 2E1EUB, Paul, and OZ1MY, Ib. I like to call it the “spies”.

We would like to have many more members of this group. I have a long list of possible very active satellite operators whom I will approach in the near future.

The idea is to have for example AO-51 in a mode where no CTCSS tone is needed to open the receiver. That way we can record intruders if we have enough members of the spy group over the whole World.

Once we have the documentation we can work with the IARUMS to have the intruders removed from our frequencies.

The first step is to get enough members of the spy group to make it possible to get the proper recordings and to convince Mike at the control station to drop the CTCSS tone for a period.
 On the next page there is a list of useful satellites.
 I have not included PO-28 in the list – but there are data about that one on page 8.

”Spy satellites”

AnalogSatellite	Uplink	Downlink(s)	Remarks
<i>AO-27</i>	145.850 MHz (FM)	436.796 MHz (FM)	AO-27 now active for about 6 min. during evening passes from South to North. This may change.
<i>AO-51</i>	145.880 MHz and 145.920 MHz (FM)	435.302 MHz and 2401.198 MHz (FM)	To be able to find the source of QRM the PL tone must be off. This is normally the case on QRP days with uplink on 145.880 MHz. When mode-V/S was first active with uplink on 145.920 MHz without PL tone lots of QRM could be heard
<i>SO-50</i>	145.850 MHz (FM)	436.794 MHz (FM)	This is not a good “spy” satellite since the PL tone must always be used.
<i>FO-29</i>	145.900 – 146.000 MHz Linear	435.900 – 435.800 MHz	FO-29 seems to have a lower sensitivity than the FM satellites – and is in a higher orbit – but never the less you can hear QRM in the whole range of the uplink. 145.920 MHz is very bad.

PO-28 (POSAT).

During the AMSAT-UK Colloquium 2005 it was announced that PO-28 would return to the Amateur Satellite Service.

It can be used in different ways, but most likely it will be used as a FM voice repeater on some days of the week and for 9k6 store and forward on other days of the week.

Information here:

Name: PoSAT-OSCAR 28 (PoSAT-1)

Catalog Number: 22829

Callsign:Broadcast: POSAT1-11**BBS:** POSAT1-12

Launched: September 25, 1993

Launch vehicle: Ariane

Launch location: Kourou, French Guiana

Weight: 48.7 kg

Orbit: Circular LEO (Low Earth Orbit), sun synchronous, initially 822 x 800 km (currently 799 x 783km)

Inclination: 98.6 degrees

Size: 350 x 350 x 650 mm

Period: 101 Minutes

Digital Transponders Mode JD 9600 baud FSK (FM)

- **Uplinks:**
- 145.925 MHz
- 145.975 MHz
- **Downlinks:**
- 435.250 MHz
- 435.275 MHz
- **Commercial Downlink:**
- 429.950 MHz

Features:

- Similar to [KITSAT-OSCAR-23](#) in construction.
- 9600 bps AX.25 protocol store-and-forward [PACSAT Protocol Suite](#) communications system.
- 38k4 bps downlink capability
- CCD Earth Imaging System (EIS)
- Star Sensor
- GPS Navigation Experiment
- Cosmic Ray Experiment (CRE)
- Digital Signal Processing Experiment (DSPE)

The information is from the AMSAT-NA homepage: www.amsat.org

PCSAT 2.

PCSAT2 on the outside of the International Spacestation could possible be used as well. It has the option to used as a FM repeater: (next page)

PCSat2

UI Digipeater	145.825 MHz FM 1200 Baud AFSK
TLM and PSK Downlink	435.275 MHz FM 1200 AFSK or PSK-31
PSK-31 Uplink	29.4 MHz PSK-31
Aux Downlink	437.975 MHz FM 1200 and 9600 Baud AFSK
Voice Repeater Downlink	437.975MHz FM
Deployed	3 August 2005

Status: **Operational**

PCSat2 is a payload experiment mounted externally on the International Space Station. It uses the same frequencies as PCSat but will also include a PSK-31 experiment. For more information visit the [PCSat2 Website](#).

70 cm band.

SSETI-Express.

Once SSETI-Express gets up there it might be useful as well to test the 70 cm uplink. That is with the CTCSS tone of.

Frequencies are:

Communications details:

	UHF	S-Band
Frequency	437.250 MHz	2401.835 MHz
Antennas	Monopole whip	Three patch antennas facing -x, +x and +z
Power	Approx 3W	Approx 1.5W +z, and 0.7W +/- x
Modulation	FSK	FSK
Protocol	Unnumbered AX25	Unnumbered AX25
Baud rate	9600 bps	38400 bps
Polarisation	Linear	Right-hand circular

When the students are finished with their experiments we get full use of it. It will be running as a FM repeater with uplink on 70 cm and downlink on 2.4 GHz.

OZ1MY/Ib

WX FAX NYT

Michael Pedersen....OZ1HEJ

E-mail: sne@kappe.dk

WX hjemmeside: www.kappe.dk

Orkan info og tracking.

Det er højsæson for orkaner i Bla. USA og hjemmesiden WTOC TV, er et udmærket sted at finde flere informationer om tidligere og igangværende orkaner.

DOPLER MAX II
Tropical Weather

Monday, September 26, 2005
2:00 pm

[Favorites](#)
Click this button to add this page to your favorites

 **Free Hurricane Tracking Program**
WTOC "Track-A-Storm" Program
INSTRUCTIONS
for downloading data files into "Track-A-Storm" Program


[Meet the WTOC Weather Team](#)

[Click here for a Blank WTOC Hurricane Tracking Map](#)

[Tropical Atlantic Ocean](#)

 30 min Satellite
 Hemispheric View
 East Tropics
 [Click here for the Current Tropical Weather Outlook](#)


Hurricane "Rita"

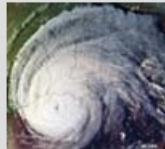
- ◆ Latest Advisory, discussion and probabilities relayed from WTOC
- ◆ NHC 5 Day Forecast

Wind Forecast:

- ◆ 30 Hour wind forecast, updated every 3 hours
- ◆ Animation 30 Hour wind forecast, updated every 3 hours

"WTOC's Track-A-Storm" program

- ◆ 120 hour forecast points for "WTOC's Track-A-Storm" program (Start "Track-A-Storm" first, then click on this self executing file and it will load the data points into the tracking program. Select "OPEN" or "RUN")

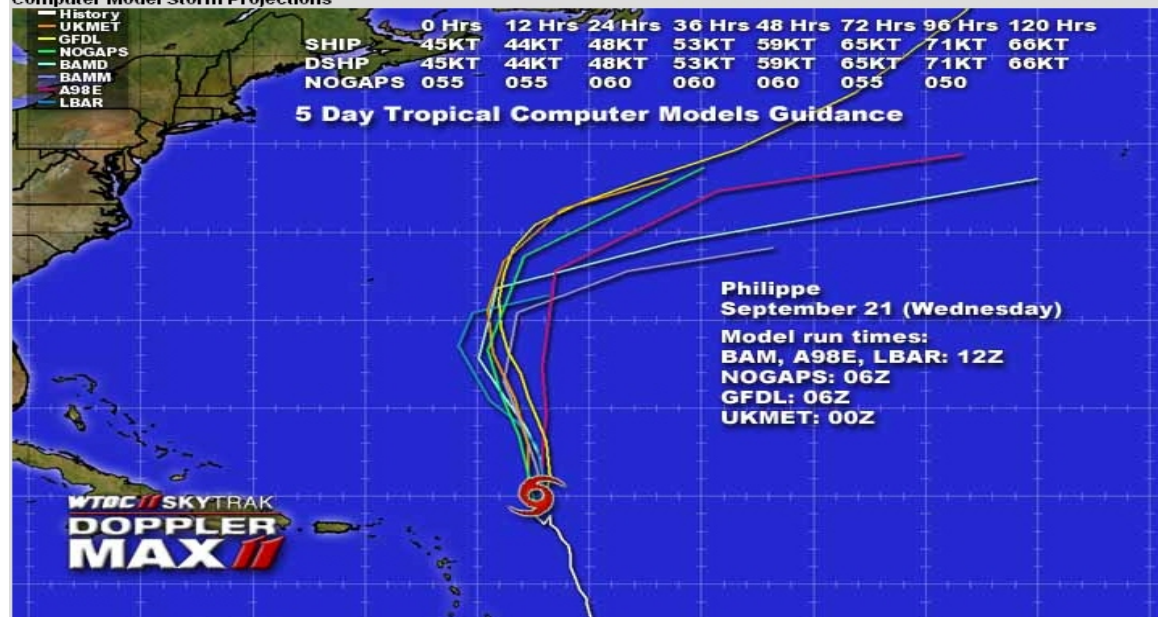
 NOAA-12, Fri, 9/23/05
 NOAA-18, Thu, 9/22/05
 NOAA-18, Wed, 9/21/05
 NOAA-12, Tue, 9/20/05

Forsiden vil selvfølgelig ændre sig, efter de aktuelle orkaner. På nuværende tidspunkt er orkanen Rita aktuel og der kan hentes alle aktuelle data direkte fra hoved siden.

Øverst til venstre, kan man downloade WTOC's orkan tracke program. (Mere om det senere). Nederst til venstre, kan man downloade et tracke kort, hvor man selv kan plotte data ind.

Model Projections

Computer Model Storm Projections



These are the individual raw computer outputs from the different models. **THIS IS NOT THE OFFICIAL FORECAST FROM THE NHC.**

Ved et klik på tracking, vil der fremkomme et kort, med prognoser og som det ses i øverste menubjælke, kan herfra vælges mellem blandt andet, radar, regn, lyn osv.

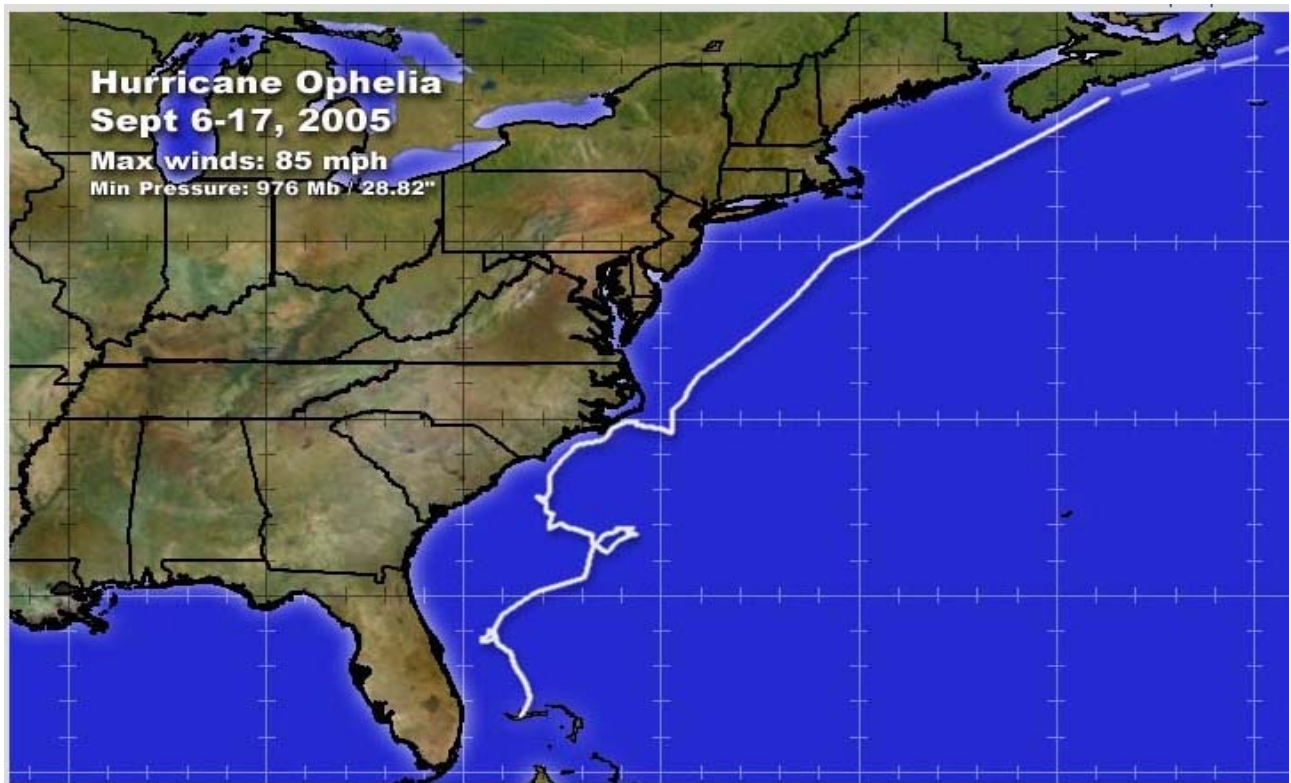
2005 Tropical Storm Name

Arlene	Bret	Cindy	Dennis	Emily
Franklin	Gert	Harvey	Irene	Jose
Katrina	Lee	Maria	Nate	Ophelia
Philippe	Rita	Stan	Tammy	Vince
Wilma				

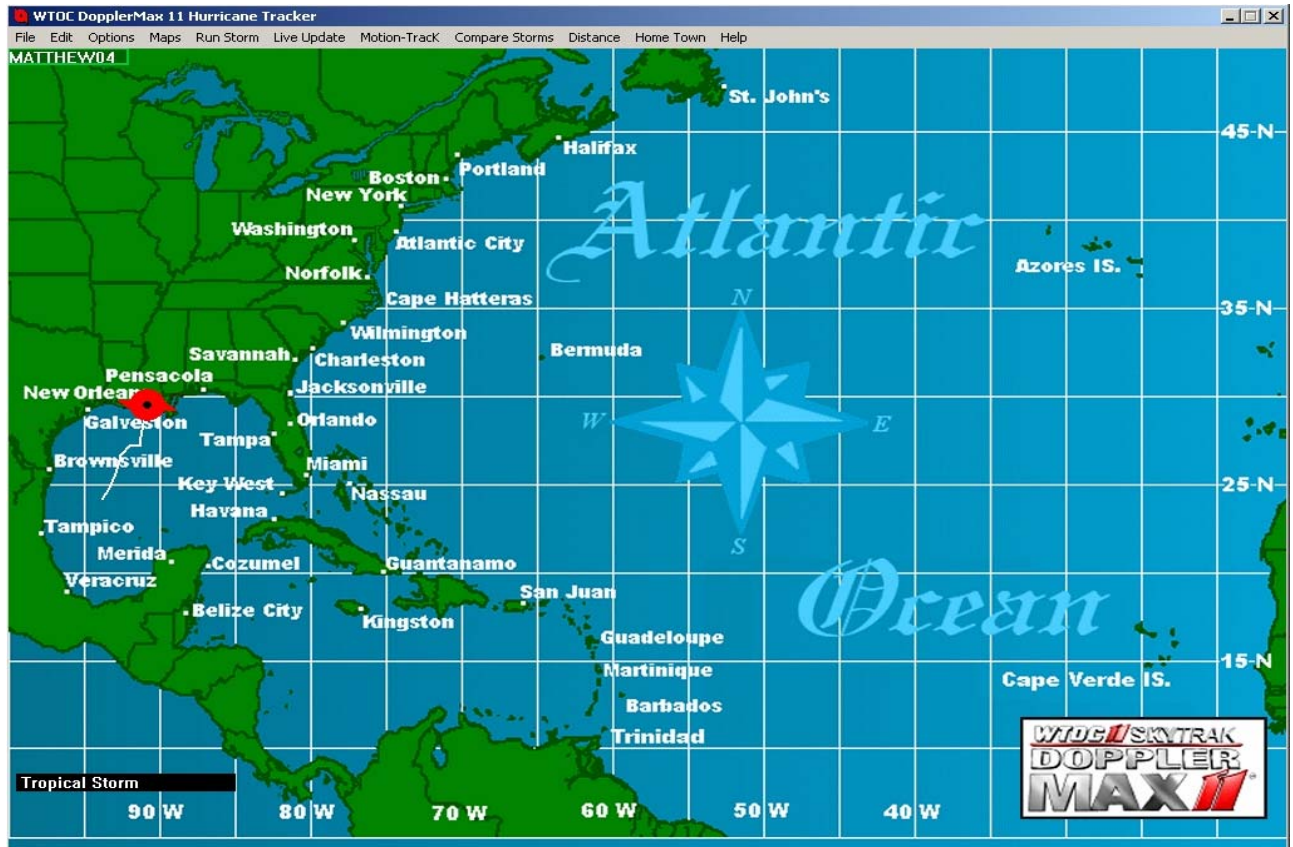
Saffir / Simpson Hurricane Damage Potential Scale

Category	1	2	3	4	5
Winds (MPH)	74-95	96-110	111-130	131-155	higher than 155
Winds (Knots)	65-82	83-95	96-113	114-135	higher than 135
Pressure (inches)	Above 28.90	28.90-28.50	28.49-27.90	27.89-27.15	Below 27.15
Pressure (Mb)	Above 980	979-965	964-945	944-920	Below 920
Storm Surge (ft)	4-5	6-8	9-12	13-18	19-25
Damage	Minimal	Moderate	Extensive	Extreme	Catastrophic

I overstående menu, kan man vælge mellem "overstående" orkaner. Hvis man f.eks. klikker på Ophelia, vil man se følgende tracke kort.



Hvis man derefter går over på DMI's hjemmeside, vil man kunne følge resterne af Ophelia og se det lavtryk, som det har udviklet sig til, og som senere er forsat op over Island.



Hurricane tracker, er et gratis program, man kan downloade fra WTOC's hjemmeside.
(Det fylder cirka 8 Mb).

Efter installering, kan man vælge mellem forskellige orkaner, som ligger i programmet eller man kan downloade data til pt. aktive orkaner, og så f.eks. sammenligne dem i styrke med tidligere orkaner eller sammenligne deres baner.

Der er flere geografiske kort i programmet, så man uden problemer kan skifte fra USA's øst kyst til vestkysten.

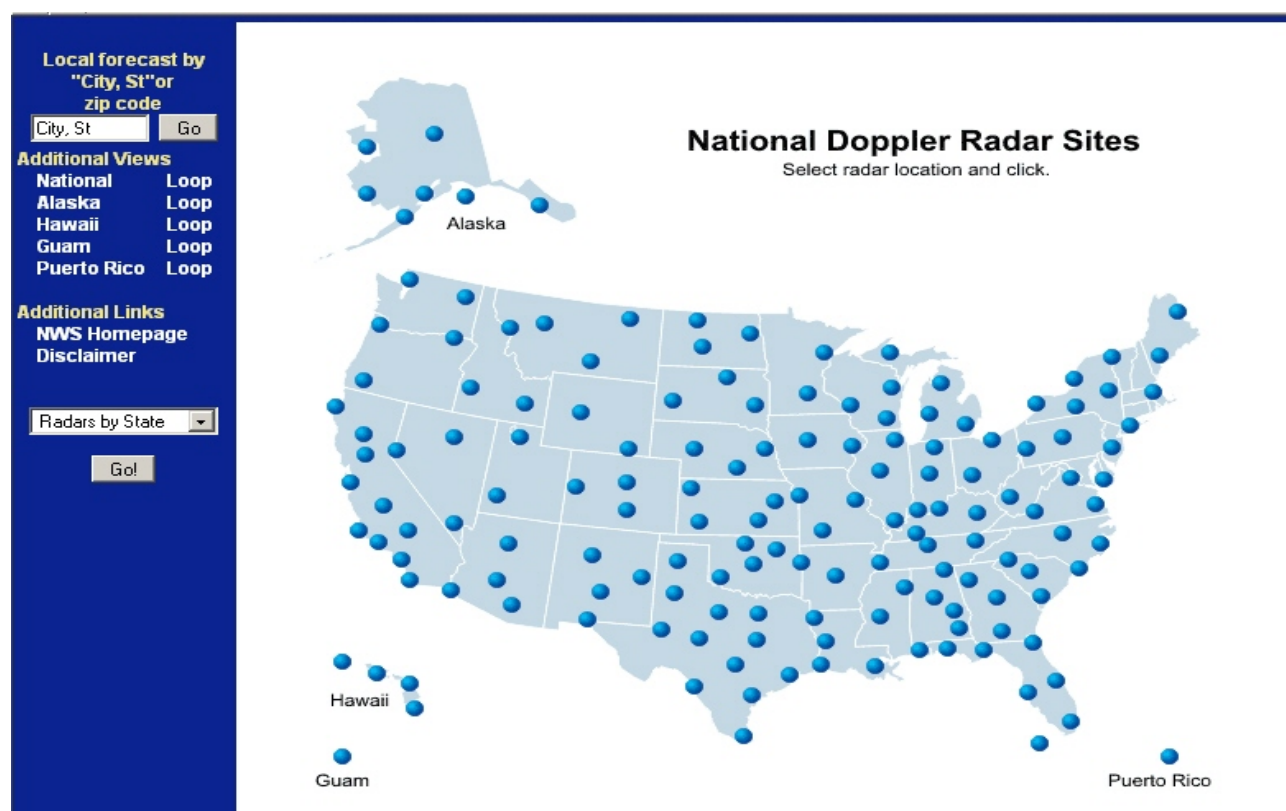
Du kan finde omtalte info og programmer på :

<http://weather.wtoc.com/tropical/trop.aspx>

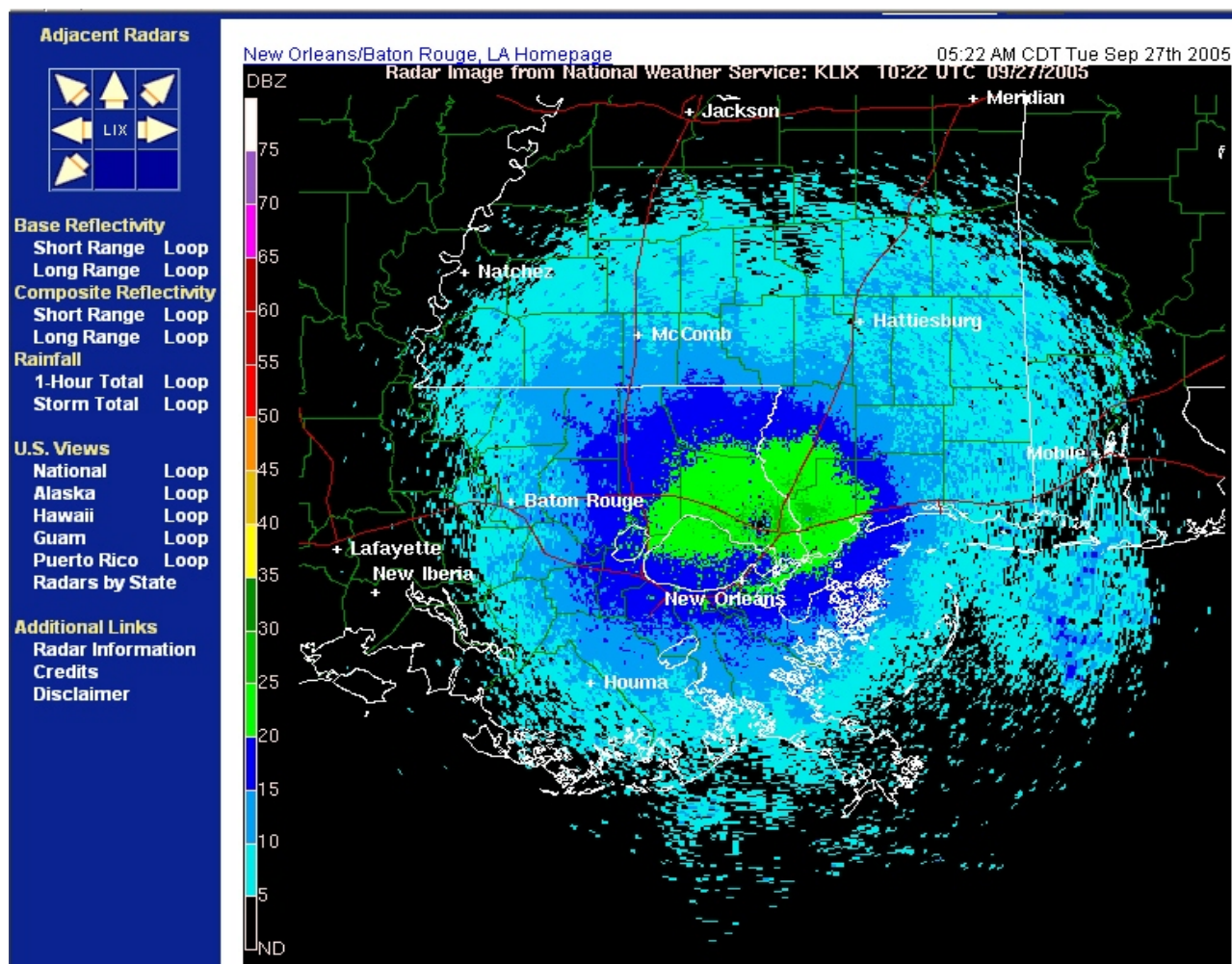
NOAA's orkan hjemmeside.

Dette er den officielle meteorologiske side om orkaner fra NOAA.

Der er informationer af alle slags, på denne side. Et klik på RADAR vil vise dette kort.



Oversigten viser placeringen af radarstationer i USA og ved at klikke på en station i det område man vil se nærmere på, kommer der først et "alm" radarkort.



Jeg klikkede på New Orleans hvor orkanen Rita huserede og man kan nu vælge at få animeret kortet i kortere eller længere sekvenser.

Det er også muligt at kombinere radarkort fra flere stationer, så hvis man ikke kan finde en radar, der dækker det område, man vil se, kan man få "sammenlagt" data fra 2 forskellige stationer, for at få genereret en animation.

Du kan finde siden på denne URL:

<http://www.nhc.noaa.gov/>

Der findes alt det man kan ønske sig af oplysninger om orkaner, men man kan via deres "links" også klikke sig videre, til en radioamatør side, hvor der er info om hvordan man feks. laver nødantennener og opretter radiokæder osv..

Du kan finde denne side på:

<http://www.wx4nhc.org/>

/OZ1HEJ

Analog satellitstatus

september/oktober

Som tidligere skrevet kan det trigge en god gang ønsketænkning, når der kommer QSL kort fra mere eksotiske lande. Det her kom lige i dag.

AO-51 køreplan for oktober.

1 Oct

FM Repeater, V/U

Uplink: 145.920 mhz FM, 67 hz

PL Tone

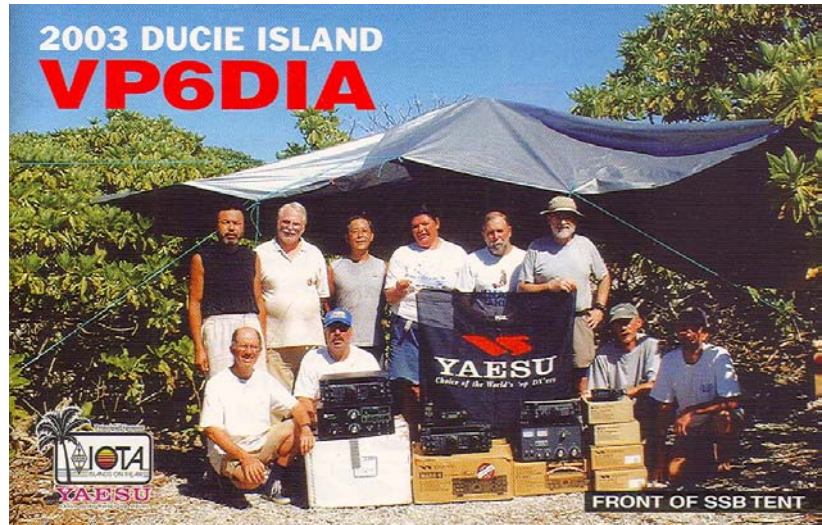
Downlink 435.300 mhz FM

9k6 Digital, V/U, PBP BBS

(Pacsat Broadcast Protocol BBS)

Uplink: 145.860 mhz FM, 9k6 PBP Digital

Downlink: 435.150 mhz FM, 9k6 PBP Digital



10 Oct (JOTA weekend Oct 15 and 16)

FM Repeater, V/U

Uplink: 145.920 mhz FM, 67 hz PL Tone

Downlink 435.300 mhz FM

FM Repeater, V/U

Uplink: 145.880 mhz FM, No PL Tone

Downlink 435.150 mhz FM

17 Oct

FM Repeater, V/U, High Power Mode

Uplink: 145.920 mhz FM, 67 hz PL Tone

Downlink 435.300 mhz FM

24 Oct

FM Repeater, L/S

Uplink: 1268.700 mhz FM, No PL Tone

Downlink 2401.200 mhz FM

31 Oct

FM Repeater, V/U

Uplink: 145.920 mhz FM, 67 hz PL Tone

Downlink 435.300 mhz FM

9k6 Digital, V/U, PBP BBS (Pacsat Broadcast Protocol BBS)

Uplink: 145.860 mhz FM, 9k6 PBP Digital

Downlink: 435.150 mhz FM, 9k6 PBP Digital

Man skal lægge mærke til, at den FM repeater, der har uplink på 145,880 MHz er beregnet til QRP stationer.

AO-51 Special Event - JOTA Weekend 15-16 Oct

September 25, 2005

The annual Boy and Girl Scouts "Jamboree on the Air" Amateur Radio event is scheduled for 15 and 16 October 2005. As this is an International Scouting event, amateur radio stations around the world are invited to participate.

The AO-51 command team is scheduling the satellite for exclusive use by the Scouts, and Satellite operators communicating with the Scouts, for this weekend. Please allow the Scouts the opportunity to make as many contacts as possible via AO-51 during this short time period. Base stations, please remember that most of the JOTA stations will be portable, so please use minimum power. The official times for the JOTA event will be from 1200 UTC on October 15 until 1200 UTC on October 17, 2005.

For the JOTA weekend, AO-51 will be configured in the Dual FM repeater mode. This will provide two independent FM repeaters (separate uplink and downlink frequencies) for use over the weekend. Both repeaters will be for use by the JOTA activity. This mode will run Monday through Friday before the event to allow amateur satellite stations to familiarize and test this mode. The configuration of the satellite frequencies for this mode is listed below.

AO-51 FM repeater #1
Downlink: 435.300 MHz
Uplink: 145.920 MHz with 67hz PL Tone

AO-51 FM repeater #2
Downlink: 435.150 MHz
Uplink: 145.880 MHz with NO PL Tone

Here are some web links for information on the JOTA weekend activity.

<http://www.arrl.org/FandES/ead/jota.html> and
<http://www.arrl.org/FandES/ead/ideas.html>
<http://www.scouting.org/international/jota.html>

If your local club has a JOTA activity planned for the weekend please consider volunteering your services to provide a satellite communication station for the event.

Thanks for your support and participation.

73, KE4AZN
Echo Command Team
Amsat VP-Operations

SSETI-Express udsættelse af opsendelse.

Som beskrevet på forsiden er opsendelsen udsat på ”ubestemt tid”. Hvad det vil sige, er ikke godt at vide – men opsendelsesgruppen er rejst hjem.

Jeg var en tur i Aalborg den 29. september af andre grunde, men fik en kort snak med gruppen deroppe. Karl var kommet hjem i løbet af natten, så han sov de retfærdiges søvn.

En hel bog om SSETI-Express.

I kan hente en hel bog om SSETI-Express på AMSAT-UK's hjemmeside. Den er rigtig god ☺

Det er på:

<http://www.uk.amsat.org/>

lidt nede af forsiden, så er der et pdf dokument til download både på engelsk og fransk.

AO-51 i september.

I den første halvdel af september var den stillet om til at blive brugt i forbindelse med nødhjælp til New Orleans.

I den sidste halvdel var den dels sat til at køre med 2,4 GHz downlink med 38k4 en weekend – dels sat til at køre som mode-V/S FM repeater i en uges tid efter det. Det var ganske

glimrende, fordi vi så kunne teste vores jordstation inden SSETI-Express blev sendt op. Vores venner i Aalborg havde også meget fornøjelse af det.



Fra venstre er det Karl fra Aalborg, Niel som er projektleder, en , som jeg ikke kender, så kommer Graham, G3VZV, og en til, som jeg ikke kender.

AO-7.

Den har jeg ikke brugt ret meget – men her i weekenden den 1. og 2. oktober kom den i gang i mode – UV (70 cm op med 2 meter ned) med helt fine signaler.

VO-52.

Virker helt fint. Der er masser af plads til mange flere.

FO-29.

Her er der 100 kHz båndbredde, der venter på at blive brugt. Satellitten kører fint, og den er stadig højt oppe, når den kommer forbi os for tiden.

SO-50.

Virker meget fint. Der er stadig mange, der ikke har fundet ud af, hvordan man tænder den, så det gør jeg en gang i mellem.

For at repetere. Man skal sende en 74,4 Hz CTCSS tone for at aktivere satellitten. Så skal man skifte til en 67 Hz tone, når man går i gang med at kalde CQ.

AO-27.

Virker fint og er tændt på de sene eftermiddags passager. Mere QRM fra Spanien end der plejer at være. Jeg troede ellers vi var sluppet af med den.

Her er lidt af en udfordring:

From: "Ryu FUNASE" <funase@space.t.u-tokyo.ac.jp>

Subject: [amsat-bb] XI-V launch and request for help

Date: 23. september 2005 17:02

Hello all,

I'm Ryu Funase, at University of Tokyo ISSL (Intelligent Space Systems Laboratory).

As you all may know well, our second cubesat called "XI-V" (sai-five) will be launched on September 30th, which will be separated from SSETI Express.

XI-V uses amateur radio band to communicate with the ground station. We, XI-V team would appreciate it if you receive the signal from XI-V. You can send us the received data via email (xi5report@space.t.u-tokyo.ac.jp), or upload any data file through the web format (<http://www.space.t.u-tokyo.ac.jp/cubesat/upload/xi5report-e.aspx>).

The specification of the transmitter is as follows:

CW morse-coded signal is on 437.465MHz +/- doppler, output power is 80mW

FM packet of AFSK AX.25 is on 437.345MHz +/- doppler, output power is 800mW. The details can be seen at

<http://www.space.t.u-tokyo.ac.jp/gs/satinfo-e.html#xi5>

Although the FM packet will not be transmitted unless commanded by the ground station at Tokyo, CW signal is always ON, so anyone can receive it. You can see the format of the CW signal at <http://www.space.t.u-tokyo.ac.jp/gs/application-e.html#xi5>

As to the TLE, we will use that of SSETI Express (provided by Graham), as the separation velocity is so small that the deviation from the orbit of SSETI Express will be negligible for a few days.

Below shows the timeline.

Sep 30 06:52:26 (UTC) launch

Sep 30 08:37:26 (UTC) separation of XI-V

Sep 30 09:08:00 (UTC) start of CW transmission (which will occur over the pacific ocean)

Due to the power limitation, the initial interval of the CW signal is about 30 seconds, and it will be very difficult to catch its signal. We really appreciate it if you could help us. Any format of received data is welcome.

If you have anything to ask, please contact me or send email to

cube_info@space.t.u-tokyo.ac.jp

Best regards,

Ryu Funase

Noise Cancelling Headphones

Jeg har et had/kærlighedsforhold til hovedtelefoner til brug for kommunikation. Ind i mellem har jeg lånt eller købt forskellige typer, for så at vende tilbage til en rigtig gammel slave, der bestemt ikke er beregnet til HiFi.

Nu er der mange, der markedsfører hovedsæt, som har den egenskab, at de dæmper omgivelsernes støj i større eller mindre omfang. Det måtte prøves ☺

En søgning efter sådan nogen viste at der er kæmpe prisforskelle på de billigste og de dyreste, så selv om det var fødselsdag gik jeg efter et sæt i mellempris laget.

WIMO har et sæt med typebetegnelse NC-3 til rundt regnet 54 EURO – men så kommer der levering på med yderligere 20 Euro. Nå det var jo fødselsdag.

Det var primært blæserstøj fra PC'en og transeiveren, jeg godt ville have dæmpet. Det sker da også – men ikke så meget, som jeg havde regnet med. Det lykkedes at finde ud af, hvem der har fremstillet hovedtelefonen, men der er ingen specifikationer overhovedet, så man kan ikke hænge dem op på noget.

Det er jo ikke et sæt, der er beregnet til kommunikation, så frekvensgangen er alt for bred i forhold til det, som vi har brug for til det. Det kunne være undgået ved at købe et sæt fra HEIL. Det sæt har den bagdel, at det koster noget i retning af 100 Euro mere.

Efter at have eksperimenteret med sættet i et par dage er konklusionen, at det virkelig reducerer omgivelsernes støj – at der er for meget bas, som især generer når jeg lytter efter SO-50 (FM uden Squelch), som ikke har senderen tændt med mindre der en QSO i gang – at sættet er OK ved SSB QSO'er – at det er følsomt for berøringer.

Det sidste kom jeg ud over ved at sørge for, at selve telefonerne og ledningerne ikke kom til at berøre flipperne på min skjorte. De indbyggede mikrofoner samler nemlig den ”skrabestøj” op, så det virker generende. Det var meget primitivt ved at sørge for, dels at den nederste del af telefonerne ikke kunne nå min skjortekrave – dels ved at ledningerne på den del, hvor de er delt i to blev holdt sammen, så langt som muligt. Brugte bare sådan nogen ”dimmere”, som man lukket plastikposer med.

En anden ting, jeg skulle vende mig til, var, at jeg selv lød anderledes end jeg plejer. Det er en af de sjove ting man kommer ud for med fuld duplex over satellitterne, hvor man jo kan høre sig selv både akustisk og via satellitten.

Jeg har ikke testet i andre omgivelser end her i radiatorummet, så det må I have til gode til en anden gang.

OZ1MY/Ib



Keplerelementer i UoSAT format

FILENAME : keps.txt DATE : 2005/10/04. TIME : 20:51:58

NAME	EPOCHE	INCL	RAAN	ECCY	ARGP	MA	MM	DECY	REVN
AO-07	5271.66093	101.61	315.70	0.0012	35.37	324.82	12.53571	-2.8E-07	41261
AO-10	5270.56476	27.46	11.22	0.6032	224.65	67.07	2.05865	1.9E-06	16764
UO-11	5270.75303	98.21	270.43	0.0010	35.59	324.60	14.79313	-5.5E-07	15696
RS-10/11	5272.76200	82.93	160.80	0.0013	94.48	265.79	13.72765	6.3E-07	91542
FO-20	5271.83913	99.04	66.40	0.0540	4.74	355.86	12.83348	-1.1E-07	73279
RS-12/13	5271.68699	82.93	194.08	0.0029	147.93	212.37	13.74455	5.5E-07	73471
RS-15	5271.55288	64.82	300.38	0.0166	298.39	60.04	11.27551	-3.9E-07	44304
FO-29	5272.63108	98.53	308.04	0.0350	265.65	90.46	13.52915	-5.4E-07	45031
SO-33	5271.92803	31.43	166.19	0.0356	352.70	6.85	14.28036	2.6E-06	36166
AO-40	5272.43282	7.53	277.92	0.7924	86.98	350.67	1.25583	-4.7E-06	2257
VO-52	5271.72709	97.90	344.02	0.0028	129.93	230.43	14.80948	5.4E-06	2168
UO-14	5271.92654	98.20	275.85	0.0010	247.61	112.40	14.31428	2.5E-07	81887
AO-16	5271.63238	98.20	291.15	0.0010	255.28	104.73	14.31693	1.1E-07	81889
WO-18	5271.91133	98.21	295.91	0.0011	253.82	106.18	14.31765	3.3E-07	81899
LO-19	5272.61551	98.22	301.20	0.0011	251.60	108.40	14.31938	-4.0E-08	81916
UO-22	5272.88367	98.26	234.34	0.0008	130.60	229.60	14.39510	8.4E-07	74556
KO-23	5272.78257	66.09	287.40	0.0013	231.50	128.49	12.86433	-3.7E-07	61704
AO-27	5271.74442	98.26	261.80	0.0008	321.12	38.94	14.29146	-6.0E-08	62601
IO-26	5272.52859	98.26	263.82	0.0009	318.84	41.21	14.29388	2.1E-07	62619
KO-25	5271.94327	98.25	263.44	0.0010	296.77	63.25	14.29699	3.1E-07	59434
PO-28	5271.59810	98.25	264.13	0.0009	294.48	65.55	14.30067	-5.0E-07	62625
TO-31	5271.72248	98.52	335.81	0.0002	220.03	140.08	14.23683	2.6E-07	37514
GO-32	5272.76410	98.51	334.13	0.0001	206.65	153.46	14.23088	-4.1E-07	37520
UO-36	5272.70496	64.56	322.73	0.0013	202.92	157.13	14.78542	-1.9E-07	34727
SO-41	5272.76929	64.56	335.92	0.0055	289.62	69.90	14.80168	6.6E-07	27040
MO-46	5271.71704	64.56	320.38	0.0051	283.82	75.73	14.82817	1.4E-06	27064
SO-42	5271.68911	64.56	348.43	0.0057	292.95	66.56	14.79043	1.6E-06	27006
NO-44	5270.75575	67.05	323.62	0.0005	270.51	89.54	14.29403	-8.0E-07	20842
AO-49	5271.72440	64.56	180.52	0.0073	218.99	140.59	14.72134	8.0E-08	14909
SO-50	5271.84895	64.56	186.34	0.0074	217.64	141.96	14.71030	-4.8E-07	14898
AO-51	5271.76545	98.21	330.17	0.0084	278.82	80.35	14.40481	5.0E-07	6553
NOAA-10	5272.22172	98.77	278.25	0.0012	186.60	173.50	14.27270	-1.0E-06	98993
NOAA-11	5272.39833	98.84	358.49	0.0012	16.25	343.91	14.14769	-1.1E-06	87766
NOAA-12	5272.41445	98.71	262.09	0.0013	124.00	236.25	14.25469	8.3E-07	74709
MET-3/5	5271.80131	82.55	85.47	0.0013	339.38	20.68	13.17004	5.1E-07	67895
MET-2/21	5271.82728	82.55	178.78	0.0022	189.29	170.78	13.83595	6.4E-07	60990
OKEAN-4	5271.77463	82.54	160.81	0.0023	151.51	208.74	14.82235	2.8E-06	59125
NOAA-14	5272.33739	99.08	322.31	0.0010	70.33	289.89	14.13600	2.8E-06	55421
SICH-1	5272.67360	82.53	300.82	0.0025	136.12	224.20	14.81238	2.4E-06	54342
NOAA-15	5272.09340	98.52	277.28	0.0012	57.98	302.25	14.24541	3.0E-07	38354
RESURS	5272.90055	98.53	339.09	0.0001	176.53	183.59	14.24081	-1.0E-07	37535
FENGYUN1	5271.60795	98.61	269.28	0.0014	162.96	197.21	14.11801	9.0E-07	32910
OKEAN-0	5272.69090	97.75	293.97	0.0001	117.88	242.25	14.73294	9.7E-07	33339
NOAA-16	5272.36486	99.02	231.47	0.0011	131.23	228.98	14.12279	4.3E-06	25876
NOAA-17	5272.37329	98.65	344.27	0.0013	112.41	247.84	14.23707	2.2E-06	16966
NOAA-18	5272.38217	98.75	216.69	0.0013	240.08	119.90	14.10886	-4.9E-07	1860
HUBBLE	5271.46911	28.47	315.76	0.0004	283.43	76.59	14.99851	7.4E-06	64576
UARS	5272.75488	56.98	126.12	0.0011	95.97	264.26	15.04740	-2.3E-06	76922
PO-34	5271.83640	28.46	339.25	0.0005	271.81	88.19	15.16453	8.4E-06	38233
ISS	5272.99824	51.64	84.11	0.0002	91.55	49.06	15.73537	1.7E-04	39217
OO-38	5272.73029	100.20	151.82	0.0037	120.90	239.58	14.35735	-3.9E-07	29729
NO-45	5272.74651	67.06	318.16	0.0004	260.38	99.69	14.29500	-2.0E-06	20874

Total number of satellites : 52

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- Runs the EME & contest station OZ7UHF with its 8-meter dish for 144, 432, 1296 and 2320 MHz.
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