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Tillæg om AMSAT-UK Colloquium.	

Lidt af hvert

Den opmærksomme læser af dette nummer og nummer 4 vil have observeret mindre lay-out ændringer. Vi har fået nye printere siden sidst. Det er noget, der giver ekstra arbejde - men jeg håber, læseligheden er bedre denne gang.

Bogstaverne på side 2 er blevet lidt større, så nu behøver man ikke så stærke briller mere.

Jeg vil endnu engang gøre opmærksom på de to møder i denne måned. Det første tirsdag den 9 juni, hvor OH7JP, Jyri, Putkonen kommer og fortæller om P3D, Falcon. Det er her på Ingeniørhøjskolen Københavns Teknikum, Elektronikafdelingen, Hørkær 12A i Herlev. Tidspunktet er kl. 1900.

Det næste møde er på Ingeniørhøjskolen Århus Teknikum, Dalgas Avenue 2, kl. 2000. Der vil ON6UG, Freddy de Guchteneire fortælle om P3D og andre satellitter. Århus afd. af EDR har været så venlige at arrangere de praktiske. Begge deltager i designmødet vedrørende P3D i Marburg i slutningen af maj.

Det er også lykkedes at samle styregruppen sammen til et lille møde. Referatet er inde i bladet på side 7. Måske lidt utraditionelt har jeg valgt at bringe referatet i sin helhed - men det er for at give jer en chance for at kommentere ideer og indhold iøvrigt. Gerne pr. brev eller via BBS. Skulle det lykkes at fange os på anden vis, så er det også ok.

AMSAT-OZ er blevet omtalt pænt i Dansk Selskab for Rumfartsforskning's blad "Dansk Rumfart", som også omtaler vores to møder. Se side 8, hvor bagside af deres blad er gengivet.

Vi nærmer os opsendelsestidspunktet for KITSAT-A. Det skulle være den 23. juli. Kilde AMSAT-SM INFO. I kan jo se, om nogen af de mange frekvenser på side 2 kan bruges til noget.

Det var egentlig planen at få referenceomløb med i dette nummer - men det var der ikke tid til.

Informationskilder

Ideen med denne side er, at have et fast sted, hvor man kan se hvilke kilder der er til eksempelvis Kepler elementer, net osv.

AMSAT-OZ:

Kontakt på AMSAT-OZ, Inge-
nørhøjskolen Københavns Tek-
nikum, Elektronik afd. Hørkær
12A, 2730 Herlev, telf. 44 92 26
11 eller fax: 44 92 28 11 til Ib
Christoffersen, OZ1MY eller
OZ1KTE @ OZ2BBS på pac-
ket. Styregruppe iøvrigt: OZ9-
AAR, OZ2ABA og OZ4ACV.

Indmeldelse

Til adr. ovenfor. 50kr. pr år.
Giro 6 14 18 70

Software

Snak med OZ1GBY, Bjarne
Hansen, Kirkebyvej 27, 3751
Østermarie.

Packet: OZ1GBY @ OZ5BOX.
Også AMSAT-SM, AMSAT-
UK, AMSAT-NA.

OZ6BBS

Der ligger meget god info på
6BBS, 144,625MHz.

Forbindelse ved at taste D AM-
SAT. Man kan sende P-mail til
OZ1DMR @ OZ6BBS eller
OZ3FO @ OZ6BBS med øn-
sker: Interesse for følgende
data:

F.eks.: Spacenews. Opgiv hjem-
me BBS: OZxxx@HjemmeBBS

Andre BBS'er

Check iøvrigt alt hvad det har
label AMSAT på jeres hjem-
meBBS. Der kommer en stor
mængde info den vej.

Dallas Remote Imaging Group

De har mange indgange til
info. Adr: Dallas Imaging
Group PO. Box 117088
Carrollton, Texas 75011-7088.
ps. det er ikke gratis

AMSAT-SM

SM7ANL, Reidar Haddemo,-
Tulpangatan 23, S-256 61 Hel-
singborg. Sverige

Vores svenske venner har et
net:

AMSAT-SM net på 80m 3740-
KHz på søndage kl. 1000 dansk
tid.

og en telefon BBS: AMSAT-
SM BBS telf. 009-468 750 46
27, 1200/2400Baud.

AMSAT International

14282KHz Søndage 19.00 UTC

AMSAT SA

14282KHz Søndage 09.00 UTC

DX-info

DX information på OSCAR 13
på 145,890MHz

AMSAT-UK net:

HF: 3780kHz + QRM, man, ons
kl. 1900 lokal tid, samt søndag
kl. 1015.

AMSAT-UK.94, Herongate
Road. Wanstead Park.
London. E12 5EQ. UK

AMSAT Europa

14280KHz Lørdage 10.00UTC

AMSAT DX windows net

18155KHz
Søndage 23.00 UTC

AMSAT Launch information networks.

3 8 4 0 K H z , 1 4 2 8 2 K H z -
, 21280KHz

Goddard Space Flight Cen- ter, WA3NAN

3860KHz, 7185KHz, 14295-
KHz, 21395KHz

Jet Propulsion Lab.

W6VIO, 3850KHz
14282KHz, 21280KHz

Johnson Space Center

W5RRR, 3840KHz, 14280KHz.

BLADE:

OSCAR NEWS, medlems-blad
for AMSAT-UK.

AMSAT-SM INFO,

svensk medlemsblad

The AMSAT Journal,

AMSAT-NA medlemsblad.

AMSAT-NA. 850 Sligo Ave-
nue, Silver Spring, MD 20910-
4703, USA.

OSCAR Satellite Report og

Satellite Operator. R. Myers
Communications, PO. Box

17108, Fountain Hills,

AZ 85269-7108, USA

AMSAT-DL Journal

Medlemsblad for AMSAT-DL.

Holderstrach 10, D-3550
Tyskland.

Hvor er OSCAR og hvornår ?

Ikke alle har adgang til PC'er og tracking programmer. Det er heller ikke nødvendigt, når det drejer sig om satellitter i lave cirkulære baner.

Inden PC'erne invaderede hjem og arbejdspladser klarede man sig udmærket med en OSCARLOCATOR.

Inden OSCARLOCATOREN beskrives skal man lægge mærke til, at en satellits rotationsplan er fixeret i et stort "rum". Dvs satellitten futter rundt i en cirkulær bane, der ligger fast, mens jorden roterer mod øst "nedenunder" satellitten. Med andre ord, en satellit, der krydser ekvator i nordgående retning f.eks. ved 0° i et omløb, vil krydse ekvator et antal grader længere mod vest næste gang den kommer.

Hvis man har en globus, kan man more sig med at lege satellit i en fast bane, f.eks. over polerne, og så lade jorden rotere mod øst. På den måde ses let hvad der sker.

Det antal grader jorden har roteret mens satellitten tog en omgang kaldes for "increment". Det spor satellitten tegner på jordoverfladen kaldes for "subsatellite-path" eller "ground-track". Taler man kun om et enkelt punkt, kaldes det for "subsatellite-point".

Det sted hvor satellitten krydser ekvator i nordgående retning kaldes for "ascending node" eller "equator crossing" forkortet EQX. Værdier opgives normalt i grader vestlig længde.

For at bruge en OSCARLOCATOR skal man vide, dels hvornår EQX forekommer, dels satellittens increment, dels dens omløbstid.

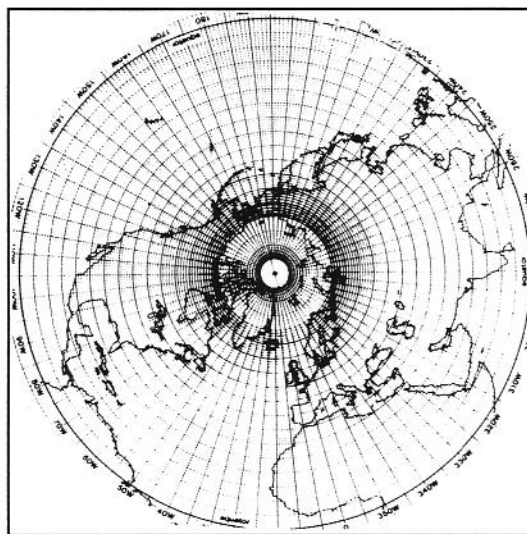
Referenceomløb.

Hvornår satellitten krydser ekvator fremgår af referenceomløbsdata. Referenceomløbet opgiver første gang satellitten krydser ekvator i nordgående retning i det pågældende døgn. Dels kan man se hvornår, dels ved hvilken værdi vestlig længde. Tiden er opgivet i UTC

(Universal Time Coordinate) eller på jævnt dansk GMT. Når vi har sommertid, er UTC = dansk sommertid minus 2 timer. Vi skal altså lægge to timer til opgivelserne i ref. omløbene for at få dansk sommertid. Omløbstid og increment er normalt opgivet lige nedenunder ref. omløbene.

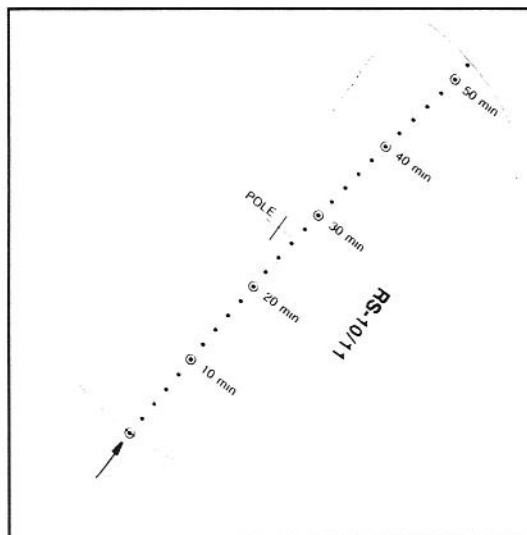
OSCARLOCATOR.

Lokatoren består af et kort, der er centreret på nordpolen. Figur 1 viser kortet i stærkt reduceret størrelse.



figur 1

sammen med et ground-track overlay i figur 2.



figur 2

og et overlay, der viser, hvor langt borte vi kan se satellitten. Det viser også hvilke vinkler, vi skal indstille vores antenner til. Dette sidste overlay kaldes en "spiderweb" eller på dansk et edderkoppespind. Til hver satellit hører et edderkoppespind. Højden satellitten flyver i afgør jo, hvor langt borte vi kan se satellitten. Det er figur 3.

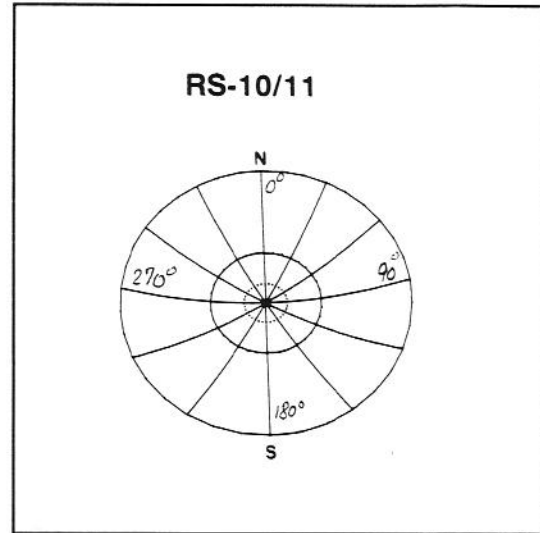
Anvendelse.

Jeg vil antage, at vi er interesserede i RS-10/11 og har en transparent af dens ground-track (satellittens spor på jorden) og en transparent af dens edderkoppespind.

1. Først anbringes edderkoppespindet centreret på din QTH med nordaksen mod nordpolen. Det er nok en god ide, at have et kort for hver satellit, så kan man bare lime edderkoppespindet fast.

Den cirkel, der er længst væk, svarer til 0° elevation for vores antenne, altså hvor vi lige præcis kan se RS-10/11, når den kommer over vores horisont. Den næste udefra svarer til 30°'s elevation og endelig den inderste til 60°'s elevation. se figur 3.

Nord og syd i azimuth ses let. Man skal så bare huske, at der er 30° imellem de andre indikerede retninger. F.eks 90° stik øst og 270° stik vest.



figur 3

2.

Nu anbringes ground-track'et, sporet. Det gøre nemmest ved at sætte en nål gennem Nordpolen på både kort og spor, så sporet kan dreje frit omkring Nordpolen.

3.

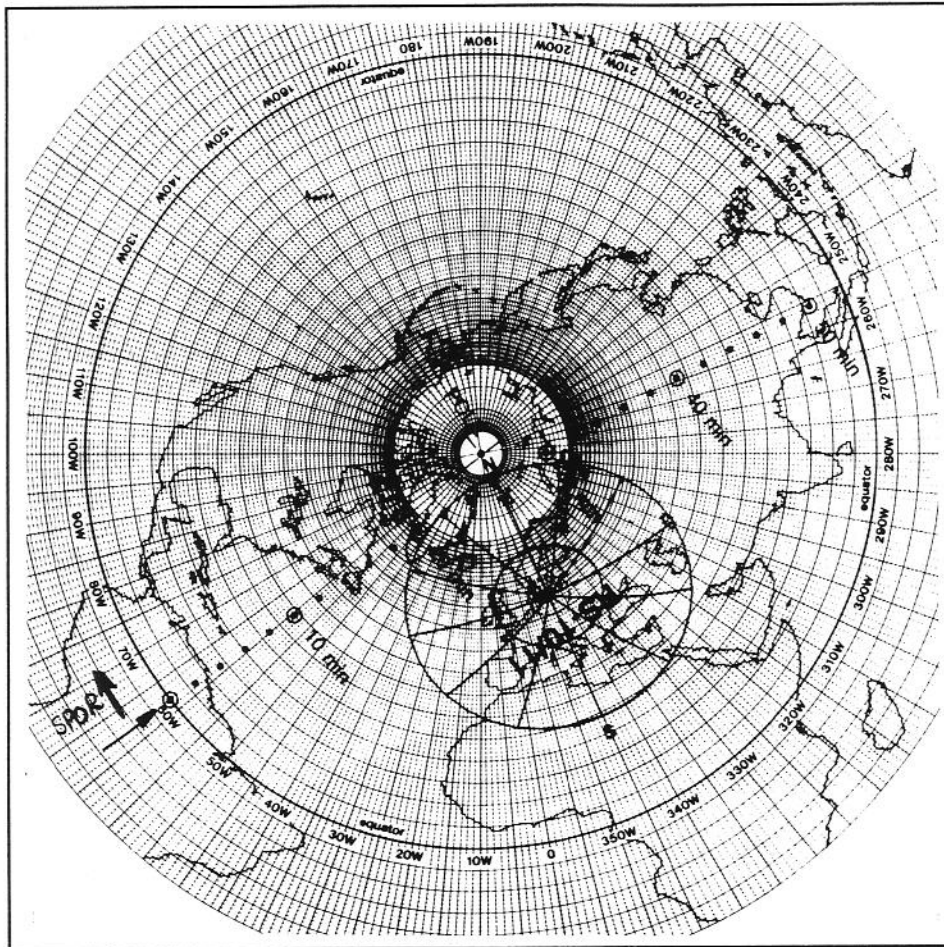
Nu kikker vi på reference omløbs data. Lad os lege, at det idag er den 10 maj 1992. Der ser vi, at omløb nummer 24455 krydser ekvator i nordgående retning (EQX) kl.0:45 UTC i 62° vest.

Referenceomløb RS-10/11, RS-12/13 og AO-21.									
Dato	RS-10/11			RS-12/13			AO-21		
	Omlnr	UTC	grd	Omlnr	UTC	grd	Omlnr	UTC	grd
9.	24441	0:15	053	6303	0:57	019	6393	0:57	249
10.	24455	0:45	062	6317	1:25	028	6407	1:25	258
11.	24469	1:15	071	6330	0:08	010	6420	0:08	240
12.	24482	0:00	054	6344	0:36	019	6434	0:35	249
13.	24496	0:30	064	6358	1:04	028	6448	1:03	257
14.	24510	1:00	073	6372	1:32	037	6462	1:31	266
15.	24524	1:30	082	6385	0:16	019	6475	0:13	248
16.	24537	0:15	065	6399	0:44	028	6489	0:41	257
17.	24551	0:45	074	6413	1:12	037	6503	1:09	266
18.	24565	1:15	083	6427	1:40	046	6517	1:36	274

RS-10/11: oml.tid: 104.99635633 min., incr.: 26.37477457° W
 RS-12/13: oml.tid: 104.86583189 min., incr.: 26.34215725° W
 AO-21 : oml.tid: 104.82860785 min., incr.: 26.33271678° W

figur 4

Nu skal vi dreje vores spor, så starten præcis er på 62° vest på ekvator. Vi regner også ud, at klokken her hos os, dansk sommertid, er 2:45. Omløbet er ikke særlig godt for os. RS-10/11 er kun "synlig" i få minutter. Til gengæld kan man se, at de efterfølgende omløb bliver bedre og bedre. Som følge af Jordens rotation mod øst drejer satellittens spor jo mod vest. Se figur 5.



figur 5

4.

Det næste omløb vil krydse ekvator ved 62° vest plus incrementet på $26,37477457^\circ$ og så videre. Altså næste EQX ved $88,37477457^\circ$ vest. Der er alt for mange decimaler med i det her resultat - det er kun nødvendigt, når man skal regne lang tid frem. Vi behøver heldigvis kun regne et døgn i værste tilfælde, så rund bare af på andet decimal efter kommaet.

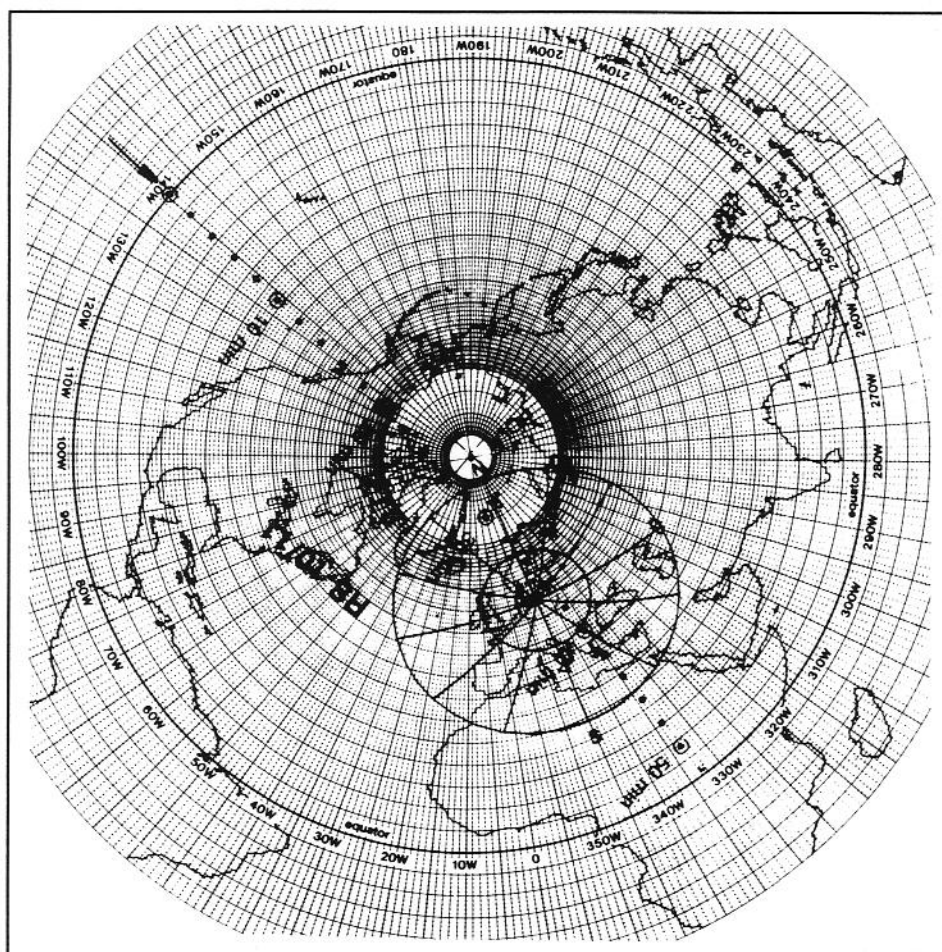
5.

Nu skal vi bare finde ud af hvornår EQX ved cirka $88,37^\circ$ vest finder sted i tid. Dertil skal vi bruge omløbstiden for RS-10/11. Den fremgår også af figur 4. Den er $104,99635633$ min. Bemærk, at den er opgivet i decimal minutter.

Nu kan man så vælge, enten at regne i normale klokketimer eller i decimalminutter. Det sidste er nok klogest. Regnerierne bliver lidt lettere. Som pejlemærker kan vi lave os en tabel, der viser de hele klokketimer i minutter. Først klokketimen, så minutterne:

0 ~ 000, 1 ~ 60, 2 ~ 120, 3 ~ 180, 4 ~ 240, 5 ~ 300, 6 ~ 360, 7 ~ 420, 8 ~ 480, 9 ~ 540, 10 ~ 600, 11 ~ 660, 12 ~ 720, 13 ~ 780, 14 ~ 840, 15 ~ 900, 16 ~ 960, 17 ~ 1020, 18 ~ 1080, 19 ~ 1140, 20 ~ 1200, 21 ~ 1260, 22 ~ 1320, 23 ~ 1380, 24 ~ 1440.

Måske lidt overflødig - men det letter arbejdet senere.



figur 6

EQX ved $88,37^\circ$ finder altså sted klokken $2:45 + 104.996(\text{min})$. Jeg runder af til 105 min. Vi skal først have oversat kl.2:45 til decimalminutter. Dansk sommertid (DST) = $2 \cdot 60 + 45 = 165,0$ min. Vi får så passagen ved $88,37^\circ$ ved $\text{DST} = 165 + 105 = 270\text{min}$. I tabellen ovenfor ses at 240min. svarer til kl. 4, rest=30min. ergo klokken er 4:30DST.

6.

Tredie gang bliver kl. $270 + 105 = 375\text{min}$. Det er 6:15DST. EQX bliver ved $88,37 + 26,37 = 114,74^\circ \text{ W}$.

7.

Fjerde omløb i det døgn bliver pænt for os. EQX klokken $375 + 105 = 480\text{min}$. eller klokken 08.00DST ved $114,74 + 26,37 = 141,1^\circ$. Se figur 6.

Vi ser, at RS-10/11 lige kommer indenfor vores rækkevidde cirka 27min. efter EQX. Dvs. klokken 08:27DST. Vores antenner skal pege cirka 350° i azimuth lige når RS-10/11 kommer over horisonten. Vi kan også se, at den kan høres i cirka 17 min.

Advarsel. Jo ældre data er, jo større fejl. Ofte vil satellitterne komme et par min. tidligere eller senere end man tror. Det er derfor klogt at lytte lidt tidligere end det beregnede klokkeslet.

Artiklen fortsætter i det næste nummer af månedsbrevet. Der vil jeg bl.a. se på, hvordan man finder ud af om, man kan række en anden radioamatør. Hvis det her har givet lyst til mere, så kan man købe såvel en OSCARLOCATOR som "The Satellite Experimenters Handbook" hos EDR's forlag.

Referat af styremøde AMSAT-OZ den 11 maj 1992.

Tilstedeværende OZ2ABA, OZ4ACV, OZ1MY og OZ1GDI. (OZ9AAR informeret senere)

1. Oprettelse af VHF-net, primært for begyndere.
Vil prøve om Vejrhøj repeater kan bruges til det på en hverdags aften. Ugedag findes senere (umuligt at gøre alle tilfreds).
1MY finder ud af hvem der står for Vejrhøj. (OZ5EL og daglig OZ1DAW ifølge Ivan).
Inden vi spørger dem, skal vi høre OZ9AAR og evt. OZ1KYM om de kan bruge den og har mulighed for at være med. 2ABA + 1MY evt. køre som controlere fra OZ1KTE.
2. Propagandafremstød.
Nummer 5 af månedsbrevet sendes til alle afdelingerne igen for at se om de vil være med.
Vedlægger giro og skriver brev til dem om nul betaling nul månedsbrev. Bemærk at der er nogle afdelinger, der har betalt.
3. Software.
Skal snakke med Bjarne om betalingsmåde ! I næste nummer af månedsbrev opfordres folk til at sende software til Bjarne. 4ACV ville kontakte ham om de programmer han har.
4. 6BBS.
Det gode initiativ fortjener en initiativpris. Vi spørger ham om han ønsker sig en juligave, der kan lette/gøre bedre for ham. (1MY)
5. Blad,månedsbrev.
Der er noget der tyder på, at der er brug for begynderartikler. Tilsyneladende ikke ret mange aktive på satellitterne i OZ-land.
Følgende ideer vil blive effektueret: Artikkel om OSCARLOKATOR og dens brug. Samtidig sættes referenceomløb for satellitter i cirkulære baner i månedsbrev. Dvs: RS-10/11,RS12/1-3,RS-14/AO-21,UO-11/14/22,AO-16/17/18/19. I samme forbindelse tages kontakt til OZ8SL angående ref. omløb. Holdningen var de, at de burde blive i "OZ".
Vi prøver at lave meget simpel "hairpin" antenne, der kan beskrives og let efterbygges, til såvel 2m. som 70cm.
MIR kunne også gøres til genstand for en aktuel artikel.
ARSENE ser også ud til at være en "nem" satellit at komme igang på. Der skal fyldes mere viden på om den !
6. Økonomi.
Der er lidt penge i kassen - men de ville hurtigt blive brugt, hvis vi selv skal financiere bladet + udsendelser. På årsmødet vil vi tage op om/og i hvilket omfang vi skal donere til P3D.

7. Årsmødet 10/11 oktober 1992.

Dels vedtægts spørgsmål. Hvis affilieret til AMSAT-UK er det ikke noget problem. Så skal vi bare oversætte og modificere, så de passer til vores pragmatisk holdning. Udstillingsaktiviteter etc: SM7ANL kommer med deres udstillingsmateriale og program-udbud. 4ACV kan godt opstille sin station her, så der kan køres Pacsat's. Andre muligheder er CCD-billeder fra WO-18 og UO-22. Så berørte vi muligheden af NOAA/met-satellitterne. Mere senere !

8. Evt. Lidt snak om antennestylinger/McDonalds/motorcykler/sludrehoveder/o.s.v.

således refereret 12 maj 1992 OZ1MY.

Dansk Selskab for Rumfartsforskning

Dansk Selskab for Rumfartsforskning er stiftet den 20. september 1949 og beskæftiger sig med den fredelige udnyttelse af rummet. Det er den danske sektion af IAF (Den Internationale Astronautiske Føderation), som blev oprettet i 1950 af de nationale astronautiske foreninger.

Selskabet arrangerer offentlige møder/foredrag, studiebesøg, udstillinger, kontakt mellem rumfartsinteresserede, presseinformation og repræsenterer Danmark i IAF m.m.

For at styrke det fagtekniske arbejde indenfor rumfartens mange forskellige aspekter har selskabet nedsat pt. 5 faggrupper, som man er velkommen til at kontakte og evt. tilslutte sig:

- Faggruppe A. **Satellitkommunikation og -navigation.**
Koordinator: Morten Olsen, tlf. 43 62 27 66
- Faggruppe B. **Bemandet rumfart og mikrogravitetsforskning.**
Koordinator: Thomas A. E. Andersen, tlf. 31 67 76 33
- Faggruppe C. **Planetforskning og rumbaseret astronomi.**
Koordinator: Finn Willadsen, tlf. 42 25 56 62
- Faggruppe D. **Jordobservation og rumbaseret meteorologi.**
Koordinator: Morten Olsen, tlf. 43 62 27 66
- Faggruppe E. **Rumfartsteknologi.**
Koordinator: Jan Marup, tlf. 33 14 60 48

Som medlem får man tilsendt bladet 'Dansk Rumfart' med information om arrangementer og nyheder med fortrinsvis dansk relevans indenfor rumfarten. Desuden får man det norske blad: 'Nytt om Romfart', der udkommer 4 gange årligt, samt andre meddelelser om arrangementer.

Årskontingenterne er: Almindeligt medlem: 275 kr, Studerende: 150 kr, Unge under 18: 50 kr. og Firmaer/Institutioner: 2500 kr. (minimum) Et firma/institutionsmedlemskab dækker tilsendelse af medlemsblade og mødeindkaldelser, men går primært til afholdelse af møder, seminarer osv. til fremme af rumfarten i Danmark.

Indmeldelse på møderne eller ved indbetaling af kontingent til:

Dansk Selskab for Rumfartsforskning
Postbox 31
DK-1002 København K, Postgiro 2 04 69 70

Kontaktpersoner :

Formand :	Morten Olsen	43 62 27 66
Næstformand :	Thomas A. E. Andersen	31 67 76 33
Sekretær :	Bjarne M. Johansen	42 73 40 88

DX-pedition til OY-land

Der er folk, der bruger mange penge på at få et nyt land aktiveret på satellitterne. Hvis man er en DX-er, kan man ikke lade være. Det koster en del penge, men det kan gøres inden for rimelighedens grænser.

Jeg har længe haft lyst til en ekspedition til 3A (Monaco), men på grund af at jeg ikke kunne få ferie sammen med min familie, er jeg ikke kommet afsted. Det er der så også andre, der har gjort (3A/DG6MGP, 3A/ON4AWQ, 3A/ON1AIG).

Jeg så mig om efter et andet land, og der var ikke så mange muligheder, da det skulle kunne klares på en week-end, så valget blev OY (Færøerne). Efter at have fået grønt lys fra min familie (jeg skulle afsted alene), gik jeg i gang med forberedelserne. Transport, radioudstyr, mast o.s.v. Det største arbejde var at forklare rejsebureauet, hvordan det sted, jeg ønskede at bruge, skulle se ud. Nede om jorden og ikke for langt ud til antennerne.

Det næste problem var en strømforsyning 12V-10A. Min egen vejer et tons, så det var udelukket. Men Jørgen OZ1KYH havde nogle stumper liggende, så han lavede en, der skulle kunne bruges, tak Jørgen.

Jeg tog en af mine egne 70 cm antenner med, og lånte en 4 elm. 2 m hos Werners Radio, som jeg kunne sælge der oppe, hvis der var nogen, der ville købe den (det var der). Også en tak til Werner. Masten lavede jeg af aluminiumsrør, så den ikke vejede for meget.

Jeg sendte et brev til OY9JD Jon og fortalte ham, at jeg kom og besøgte ham. Han er den eneste, der har været QRV fra OY, men han kan ikke lide, der er pejl oppe, hver gang han lufter sit call.

Så kom endelig dagen for afrejse (Odense,

OY-arin



torsdag kl. 0600, med tog til København, og flyveren til Færøerne).

Sommerhuset lå rimeligt godt. Der var nogle fjelde mod Øst og Nord, men med ca. 20 grader elevation gik det fint. Der var bid med det samme, men de vidste også, jeg kom i luften, så de lå og ventede på mig.

Vejret var ikke godt, det regnede på hele turen, og max. 10 grader. Jeg skulle gerne se lidt af Færøerne, nu da jeg var kommet derop. Så jeg tog ind til Thorshavn for at besøge en bekendt til min kones familie, og selvfølgelig også Jon. Jeg fik lov til at bruge hans station, og fik kørt en del QSO fra hans QTH. Efter at hans mors havde budt på varm mad, kørte vi en tur i Thorshavn. Jon er ved at bygge hus, og var næsten færdig med stueetagen. Man bygger næsten altid i to plan på Færøerne. Det er en god QTH med hensyn til antenner. Vi var også nede i klubben. Den ligger et fint sted, nede ved vandet og frit sigt hele vejen rundt.

Tilbage til sommerhuset med en ekstra strømforsyning og PA, da min egen viste sig at være for lille. Nu skulle der køres mange QSO. Om lørdagen var jeg også QRV på AO-10. Men det blev ikke til det helt store. Mange har

glemmt, at den stadig virker, det er synd, for signalet fra satellitten er godt. I skrivende stund (23/5) er jeg ved at putte alle info fra turen i min computer, så jeg senere kan printe labels ud til QSL-kort. Det blev til 227 Call, jeg har ikke tal på, hvor mange lande det blev til, men det kommer senere.

Jeg har fået mange erfaringer fra turen, og jeg ved, hvad jeg skal have med, næste gang jeg tager afsted.

Til sidst en stor tak til OY9JD Jon og hans familie for deres gæstfrihed og lån af udstyr, og også tak til OZ1KYH Jørgen for din hjælp til at gøre turen til en succes.

OZ1KYM Henning Ø Hansen, Stubben 4, 5631 Ebberup, 64741555.

Smånoter.

DOVE OSCAR-17

Der arbejdes med softwaren til talesyntesen. Det kan høres på 145,825MHz. Det lyder meget syntetisk. Prøv at lytte på den. Der er fremskridt på vej

ADVARSEL ADVARSEL

Patch #2 til InstantTrack.

Patch #2 til InstantTrack 1.00 er nu klar. Denne patch reparerer en "bug" i Patch #1 som kunne forårsage system nedbrydning eller anden uforudset opførsel, når man læser en NASA 2-linje file.

Brugere som har installeret Patch #1 rådes til at installere Patch #2 så hurtigt som muligt for at undgå problemer.

Lige som Patch #1 er Patch #2 designet til at løse problemet som opstod da NORAD ændrede checksummen i 2-linje elementerne. NORAD ændrede værdien af plus-tegnet fra 2 til 0. Brugere kan undgå problemet ved at ændre plus-tegnet til en space. Installerer man

Patch #2 behøver man ikke lave de manuelle ændringer. Den således ændrede udgave af InstantTrack 1.00b vil acceptere NASA format elementer som bruger enten den ene eller den anden værdi af plus.

Patch #2 findes på BBS'erne under navnet ITPATCH2.ZIP eller ITPAT2.ZIP.

Patchen er lavet af Paul Williamson,KB5MU.

KITSAT opsendelsesdato.

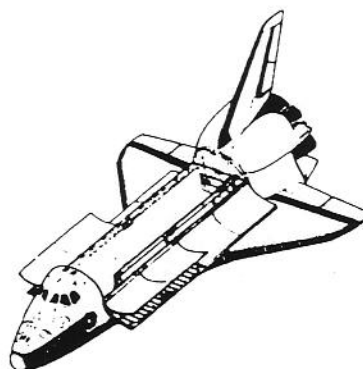
Ser ud til at blive den 23 juli 1992.

SAREX.

Shuttle flight STS-50 Columbia er planlagt til opsendelse den 9. juni. Det antages, at der vil være 2 meter FM samt SSTV og Packet.

Inclination for STS-50 er kun 28°, så den bliver ikke til at høre direkte. Der er en række frekvenser, der bruges til retransmission: 3860kHz, 7185kHz, 14295kHz, 21395kHz og endelig 28650kHz.

STS-47 Endavour ser bedre ud. Den har en inklination på 57°. Den skulle komme op i august 92. Nærmere bestemt den 12. Der er Jay Apt, N5QWL, operatør. Der er både FM tale og Packet med der. Mere om disse i næste nummer af månedsbrevet.



From: G3RUH@GB7DDX

To: AMSAT@WW

Subject: AO-13 Operations Jun-Dec

Calendar of events for Oscar-13 to the end of 1992

Date	Event	Modes	Suns Position	
			Sun Angle	SEL/SAZ
1992 Jun 08 [Mon]	Move to 210/0	B JL S	5	-24/126
1992 Jun 29 [Mon]	L OFF	B -- -	4	-33/149
1992 Jul 20 [Mon]	Move to 150/0*	B -- -	3 to 44	-34/176
1992 Aug 17 [Mon]	L ON	B JL S	28	-26/208
1992 Sep 21 [Mon]	Move to 180/0	B JL S	-1 to 23	-2/241
1992 Nov 23 [Mon]	Move to 210/0	B JL S	-29 to -4	33/305
1992 Dec 14 [Mon]	L OFF	B -- -	-27	33/333
1992 Dec 28 [Mon]	t.b.a.		43	29/351

Notes:

1. * via Alon/Alat 180/15; expect poor performance for a few days.
2. Illumination = $100 * \cos(\text{Sun_Angle})$ % and needs to be better than 70%, i.e. Sun angle within +/- 45 deg.
3. SEL/SAZ is Sun's position in orbit plane (like ALAT/ALON). Move on Jul 20 to 150/0 is because Sun is at SAZ=176 i.e. apogee direction so the antennas cannot point there as the solar panels would not be illuminated. The Sun then gradually moves to SAZ around 208 so we cannot use attitude 210/0 as has been customary.

AO-13 Transponder Schedule Jun 10 - Jul 20

Mode-B:	MA 000 to MA 165 !	Mode-JL on Mon, Wed
Mode-JL:	MA 165 to MA 200 !	Fri and Sat UTC.
Mode-LS:	MA 200 to MA 215 !	S Beacon on "L" days
Mode-B:	MA 215 to MA 256 !	S Transp on "B" days
Omnis:	MA 250 to MA 060 !	ALON/ALAT 210/0

Mode L OFF after Jun 29 until Aug 17. Next attitude change Jul 20, to 150/0 until Sep 21.

Note that modes will only change at the above MAs. So if mode-L has hung over through midnight utc into a non-L day, it will switch off at any subsequent scheduled MA change point.

Similarly if midnight utc begins a mode-L day, the L transponder will switch on at any subsequent scheduled MA change point, if appropriate.

MIR ACTUAL:

MIR's passes within our range shifted to late afternoon and the evening hours and so gradually the radiotraffic via the VHF frequencies increased. On 145.550 mc a lot of packet radio burst, but thus far not too much phone transmissions. The crew is still busy with repair-, replacement- and maintenance work and feeding the OBC with data for the attitude control. On 6 May 1992 some failures: the power of the Antares (transceiver for SR Altair traffic) failed and a little bit later the SUD (attitude control by girodynes) -again- switched off. TsUP and crew coped with these problems, but a lot of fuel had to be spent to control attitude movements in the conventional way.

OPERATIONAL SCHEDULE FOR MIR - DURING 1992:

PROGRESS-M13: Launch on June 30th, rendez-vous with MIR on July 2d. This freighter will deliver the normal supplies (food, water, fuel, oxygen, post, etc.), but also the experiments for the flight of the French cosmonaut.

SOYUZ-TM15: Launch on 26th of July, arrival at MIR 28th of July. S-TM15 will bring the Russian relief crew and a French guest-cosmonaut to MIR. Using Soyuz-TM14 the present crew and the Frenchman will return to earth on the 9th of August.

PROGRESS-M14: Take off on 14th of Aug. and docking to the aft (Kvant) docking port on 16th of Aug. This Pr-M will deliver the attitude control motor to be installed on the top of the Sofora-mast on Kvant. This extension of MIR's attitude control systems is an urgent matter for thus far it is extremely difficult to master the movements along the X-axis (roll) of the complex. The motor weighs 700 KG-s and is just a simple thruster with its own fuel-supply. To transport this device to MIR

the mid-section of Pr-M14 (normally used for fuel tanks) will host the motor under depressurized conditions. After some days the crew will make an EVA to install the motor.

PROGRESS-M15: Launch on 5th of Oct., arrival at MIR on 7th of Oct. This freighter will carry the normal cargo plus the Regatta experiment. This experiment will take place on Oct. 20th. From the Pr-M15 a little sail will be deployed for a Regatta using the solar wind for propulsion.

AMATEUR RADIO DURING THE FRENCH EXPEDITION:

During my stay in Moscow Sergey Samburov, RV3DR, grandson of the well-known space-flight pioneer Tsiolkovskiy, told me that thus far it was very difficult to persuade the French for radio-amateur activities during the flight of the French cosmonaut. Sergey is an employee of NPO Energiya and plays a key role in the radio-amateur activities on board MIR. After a long 'struggle' he got support by his firm for radio-amateurism in space stations. For a contest on April 12th he got a temporary licence for an amateur station within NPO Energiya. He is trying to get a permanent licence for that station, which can serve as a node for information via amateur channels from, to and about MIR. Together with Leonid Labutin, UA3CR, Sergey was responsible for the training of radio-amateurs among cosmonauts. He asked me to 'relay' his concern about the lack of interest on the French side and hopes that with a little bit of pressure the French might be persuaded to do something in that field for the flight from 26th of July until the 9th of August. So please radio-amateurs: pass the word!

Chris v.d. Berg, NL-9165/A-UK3202

* MIR NEWS *

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SOFORA

A thruster package known as Sofora will be installed on a 14 meter mast fixed atop the Kvant 1 building block module. Sofora is designed to reduce the amount of propellant burned when Mir is rolled around its longitudinal axis.

Sofora weighs 700 kilograms and will be sent up to Mir on a modified Progress mission in August.

Energia engineers report Sofora carries its own propellant tanks. Doctor Blagov estimated Sofora will reduce the amount of fuel now needed to perform longitudinal roll by a factor of eight.

PRIRODA

Russia's next large module to be launched to Mir will be called Priroda, a unit that will perform Earth resource/observation duties. Priroda will be launched in 1993, with the last large building block to be launched the same year or in early 1994.

MIR 2

Mir 2 is currently under construction. Mir 2 will assume the duties of the current Mir 1 spacecraft when its useful life has ended. So far, Mir 1 has performed better and has lasted longer than engineers had originally anticipated.

FRENCH COSMONAUT

On July 26, two Russian cosmonauts and a French cosmonaut, Michel Tognini, will visit Mir for 12 days and return to Earth on August 9, 1992.

PROGRESS

The next Progress supply rocket will be launched on June 30, and its payload will include experiments and hardware to be used by Michel.

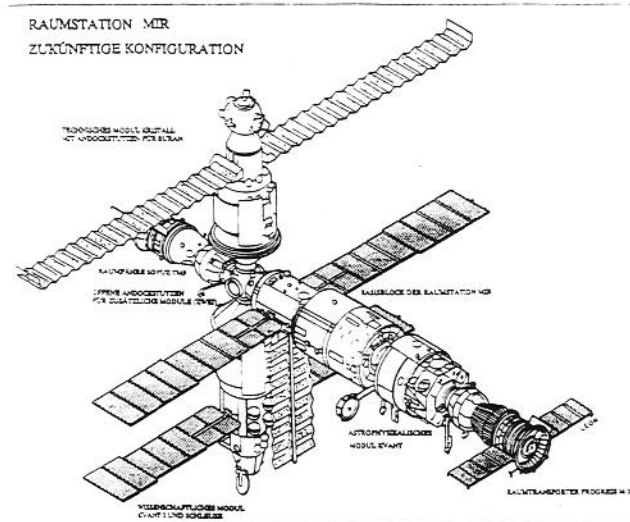
Another Progress mission is targeted for launch on October 5th.

This spacecraft will deploy a solar sail on October 20th.

ISRAELI COSMONAUT

An Israeli will follow the Frenchman and then perhaps be followed by a cosmonaut from South Korea.

Source: Jeffery Lenorovitz/Kaliningrad - Star City



Kepler elementer

Satellite: AO-10

Catalog number: 14129
Epoch time: 92132.48216704
Element set: 874
Inclination: 26.4317 deg
RA of node: 84.3076 deg
Eccentricity: 0.6052516
Arg of perigee: 342.8623 deg
Mean anomaly: 3.3043 deg
Mean motion: 2.05883898 rev/day
Decay rate: $-9.0e-07$ rev/day²
Epoch rev: 3902
Checksum: 289

Satellite: FO-20

Catalog number: 20480
Epoch time: 92135.21155460
Element set: 373
Inclination: 99.0734 deg
RA of node: 60.0610 deg
Eccentricity: 0.0540031
Arg of perigee: 269.8471 deg
Mean anomaly: 84.0783 deg
Mean motion: 12.83210894 rev/day
Decay rate: $2.3e-07$ rev/day²
Epoch rev: 10614
Checksum: 264

Satellite: AO-16

Catalog number: 20439
Epoch time: 92132.73068497
Element set: 475
Inclination: 98.6454 deg
RA of node: 215.4318 deg
Eccentricity: 0.0011213
Arg of perigee: 287.7370 deg
Mean anomaly: 72.2582 deg
Mean motion: 14.29700553 rev/day
Decay rate: $3.74e-06$ rev/day²
Epoch rev: 12007
Checksum: 300

Satellite: UO-11

Catalog number: 14781
Epoch time: 92136.10560129
Element set: 279
Inclination: 97.8548 deg
RA of node: 173.2485 deg
Eccentricity: 0.0011392
Arg of perigee: 183.2487 deg
Mean anomaly: 176.8645 deg
Mean motion: 14.68545631 rev/day
Decay rate: $1.000e-05$ rev/day²
Epoch rev: 43828
Checksum: 321

Satellite: AO-21

Catalog number: 21087
Epoch time: 92135.64337588
Element set: 411
Inclination: 82.9459 deg
RA of node: 347.7512 deg
Eccentricity: 0.0036731
Arg of perigee: 53.7376 deg
Mean anomaly: 306.7183 deg
Mean motion: 13.74483729 rev/day
Decay rate: $1.17e-06$ rev/day²
Epoch rev: 6469
Checksum: 328

Satellite: DO-17

Catalog number: 20440
Epoch time: 92134.22626752
Element set: 476
Inclination: 98.6456 deg
RA of node: 217.0258 deg
Eccentricity: 0.0011122
Arg of perigee: 282.6533 deg
Mean anomaly: 77.3403 deg
Mean motion: 14.29826198 rev/day
Decay rate: $3.77e-06$ rev/day²
Epoch rev: 12029
Checksum: 300

Satellite: RS-10/11

Catalog number: 18129
Epoch time: 92135.91473138
Element set: 209
Inclination: 82.9271 deg
RA of node: 172.9714 deg
Eccentricity: 0.0011668
Arg of perigee: 351.1081 deg
Mean anomaly: 8.9842 deg
Mean motion: 13.72284645 rev/day
Decay rate: $1.75e-06$ rev/day²
Epoch rev: 24522
Checksum: 303

Satellite: RS-12/13

Catalog number: 21089
Epoch time: 92133.75229802
Element set: 276
Inclination: 82.9259 deg
RA of node: 219.0239 deg
Eccentricity: 0.0031055
Arg of perigee: 78.4433 deg
Mean anomaly: 282.0206 deg
Mean motion: 13.73991880 rev/day
Decay rate: $7.8e-07$ rev/day²
Epoch rev: 6353
Checksum: 311

Satellite: WO-18

Catalog number: 20441
Epoch time: 92132.72246717
Element set: 476
Inclination: 98.6449 deg
RA of node: 215.5782 deg
Eccentricity: 0.0011752
Arg of perigee: 287.7891 deg
Mean anomaly: 72.1998 deg
Mean motion: 14.29818928 rev/day
Decay rate: $3.59e-06$ rev/day²
Epoch rev: 12008
Checksum: 344

Satellite: AO-13

Catalog number: 19216
Epoch time: 92129.18618148
Element set: 424
Inclination: 57.1009 deg
RA of node: 26.6564 deg
Eccentricity: 0.7300711
Arg of perigee: 285.2512 deg
Mean anomaly: 10.4315 deg
Mean motion: 2.09723112 rev/day
Decay rate: $-1.86e-06$ rev/day²
Epoch rev: 2986
Checksum: 280

Satellite: UO-14

Catalog number: 20437
Epoch time: 92136.21248521
Element set: 580
Inclination: 98.6414 deg
RA of node: 218.3192 deg
Eccentricity: 0.0010365
Arg of perigee: 270.7850 deg
Mean anomaly: 89.2141 deg
Mean motion: 14.29635179 rev/day
Decay rate: $3.32e-06$ rev/day²
Epoch rev: 12056
Checksum: 286

Satellite: LO-19

Catalog number: 20442
Epoch time: 92136.24725363
Element set: 476
Inclination: 98.6453 deg
RA of node: 219.1852 deg
Eccentricity: 0.0011695
Arg of perigee: 275.5330 deg
Mean anomaly: 84.4518 deg
Mean motion: 14.29902748 rev/day
Decay rate: $3.10e-06$ rev/day²
Epoch rev: 12059
Checksum: 309

Satellite: UO-22
Catalog number: 21575
Epoch time: 92134.22063474
Element set: 176
Inclination: 98.5095 deg
RA of node: 209.9002 deg
Eccentricity: 0.0008661
Arg of perigee: 54.1792 deg
Mean anomaly: 306.0197 deg
Mean motion: 14.36648999 rev/day
Decay rate: 4.26e-06 rev/day²
Epoch rev: 4323
Checksum: 311

Satellite: MIR
Catalog number: 16609
Epoch time: 92141.89489153
Element set: 294
Inclination: 51.6011 deg
RA of node: 023.6480 deg
Eccentricity: 0.0032431
Arg of perigee: 078.3156 deg
Mean anomaly: 282.1439 deg
Mean motion: 15.58009517 rev/day
Decay rate: 0.00015572 rev/day²
Epoch rev: 35802
Checksum: 289

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 92136.22461142
Element set: 741
Inclination: 28.4675 deg
RA of node: 106.4121 deg
Eccentricity: 0.0004964
Arg of perigee: 190.9352 deg
Mean anomaly: 169.1080 deg
Mean motion: 14.91452256 rev/day
Decay rate: 2.473e-05 rev/day²
Epoch rev: 11202
Checksum: 263

Satellite: GRO
Catalog number: 21225
Epoch time: 92133.57946655
Element set: 598
Inclination: 28.4645 deg
RA of node: 299.7838 deg
Eccentricity: 0.0005884
Arg of perigee: 159.7154 deg
Mean anomaly: 200.3723 deg
Mean motion: 15.56719062 rev/day
Decay rate: 2.4026e-04 rev/day²
Epoch rev: 6243
Checksum: 326

Satellite: SARA
Catalog number: 21578
Epoch time: 92131.73314789
Element set: 287
Inclination: 98.5109 deg
RA of node: 207.6009 deg
Eccentricity: 0.0005962
Arg of perigee: 71.4785 deg
Mean anomaly: 288.7034 deg
Mean motion: 14.37718729 rev/day
Decay rate: 1.925e-05 rev/day²
Epoch rev: 4288
Checksum: 336

Satellite: UARS
Catalog number: 21701
Epoch time: 92133.08303912
Element set: 171
Inclination: 56.9866 deg
RA of node: 348.8818 deg
Eccentricity: 0.0005087
Arg of perigee: 76.6430 deg
Mean anomaly: 283.5254 deg
Mean motion: 14.96465015 rev/day
Decay rate: 3.206e-05 rev/day²
Epoch rev: 3625
Checksum: 295

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 92135.26058620
Element set: 96
Inclination: 99.1447 deg
RA of node: 161.5100 deg
Eccentricity: 0.0014745
Arg of perigee: 208.0200 deg
Mean anomaly: 152.0162 deg
Mean motion: 14.13391317 rev/day
Decay rate: 6.16e-06 rev/day²
Epoch rev: 38242
Checksum: 265

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 92135.31236627
Element set: 943
Inclination: 98.5370 deg
RA of node: 155.7437 deg
Eccentricity: 0.0013951
Arg of perigee: 44.1304 deg
Mean anomaly: 316.0972 deg
Mean motion: 14.24656389 rev/day
Decay rate: 5.80e-06 rev/day²
Epoch rev: 29383
Checksum: 321

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 92130.10808241
Element set: 726
Inclination: 82.5445 deg
RA of node: 160.3124 deg
Eccentricity: 0.0016237
Arg of perigee: 176.3946 deg
Mean anomaly: 183.7332 deg
Mean motion: 13.84634833 rev/day
Decay rate: 1.37e-06 rev/day²
Epoch rev: 21592
Checksum: 293

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 92135.10629021
Element set: 930
Inclination: 82.5423 deg
RA of node: 144.3494 deg
Eccentricity: 0.0017885
Arg of perigee: 16.1678 deg
Mean anomaly: 344.0010 deg
Mean motion: 13.16947940 rev/day
Decay rate: 3.9e-07 rev/day²
Epoch rev: 18268
Checksum: 295

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 92135.30334653
Element set: 839
Inclination: 99.0784 deg
RA of node: 98.4836 deg
Eccentricity: 0.0012674
Arg of perigee: 118.6359 deg
Mean anomaly: 241.6092 deg
Mean motion: 14.12686955 rev/day
Decay rate: 5.32e-06 rev/day²
Epoch rev: 18735
Checksum: 331

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 92133.72794104
Element set: 677
Inclination: 82.5201 deg
RA of node: 34.1644 deg
Eccentricity: 0.0012921
Arg of perigee: 212.6257 deg
Mean anomaly: 147.4106 deg
Mean motion: 13.84283616 rev/day
Decay rate: 1.95e-06 rev/day²
Epoch rev: 16178
Checksum: 300

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 92133.90713423
Element set: 578
Inclination: 82.5462 deg
RA of node: 87.2602 deg
Eccentricity: 0.0017745
Arg of perigee: 35.2962 deg
Mean anomaly: 324.9332 deg
Mean motion: 13.15994418 rev/day
Decay rate: 4.3e-07 rev/day²
Epoch rev: 12245
Checksum: 289

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 92133.93596495
Element set: 426
Inclination: 82.5444 deg
RA of node: 96.2808 deg
Eccentricity: 0.0016373
Arg of perigee: 129.1826 deg
Mean anomaly: 231.0791 deg
Mean motion: 13.84120291 rev/day
Decay rate: 7.0e-07 rev/day²
Epoch rev: 9475
Checksum: 313

Satellite: FY-1/2
Catalog number: 20788
Epoch time: 92134.04843337
Element set: 383
Inclination: 98.9002 deg
RA of node: 165.1211 deg
Eccentricity: 0.0014006
Arg of perigee: 341.1908 deg
Mean anomaly: 18.8749 deg
Mean motion: 14.01259472 rev/day
Decay rate: -8.1e-07 rev/day²
Epoch rev: 8654
Checksum: 291

Satellite: MET-2/20
Catalog number: 20826
Epoch time: 92133.74239931
Element set: 427
Inclination: 82.5253 deg
RA of node: 34.9625 deg
Eccentricity: 0.0014729
Arg of perigee: 34.6293 deg
Mean anomaly: 325.5819 deg
Mean motion: 13.83495878 rev/day
Decay rate: 2.10e-06 rev/day²
Epoch rev: 8191
Checksum: 316

Satellite: MET-3/4
Catalog number: 21232
Epoch time: 92133.62522407
Element set: 226
Inclination: 82.5512 deg
RA of node: 350.9948 deg
Eccentricity: 0.0017789
Arg of perigee: 314.9293 deg
Mean anomaly: 45.0385 deg
Mean motion: 13.16807598 rev/day
Decay rate: 4.3e-07 rev/day²
Epoch rev: 5060
Checksum: 299

Satellite: NOAA-12
Catalog number: 21263
Epoch time: 92133.25101181
Element set: 291
Inclination: 98.6975 deg
RA of node: 165.6158 deg
Eccentricity: 0.0012079
Arg of perigee: 290.4418 deg
Mean anomaly: 69.5435 deg
Mean motion: 14.22033316 rev/day
Decay rate: 8.15e-06 rev/day²
Epoch rev: 5194
Checksum: 291

Satellite: MET-3/5
Catalog number: 21655
Epoch time: 92133.47608826
Element set: 288
Inclination: 82.5548 deg
RA of node: 297.5022 deg
Eccentricity: 0.0012862
Arg of perigee: 314.8218 deg
Mean anomaly: 45.0512 deg
Mean motion: 13.16809584 rev/day
Decay rate: 4.40e-06 rev/day²
Epoch rev: 3568
Checksum: 311

THE RUSSIAN SATELLITES - WHAT FUTURE?

AT THE TIME OF writing (March) rumours are flying around about the future of the USSR (now CIS). amateur radio satellite scene. It is said that another satellite of the RS 12/13 type was due to be launched in April last and that there were seven further satellites in the early or planning phase. All this is now in the 'uncertainty' category like much else in the former USSR.

Stories of absolute dismay keep coming, such as a lack of food and non-payment of staff wages. The uncertainty of future employment in the amateur radio satellite field and consequent resignation of those looking for employment in which they can use their highly specialised skills, bode ill for the future of Russian amateur radio satellites.

Space enthusiasts have been quick to suggest measures which might alleviate the situation, as it would be a disaster if the Russian amateur radio satellite projects were wound up. They have concentrated on providing simple satellites, constructed in several cases by space orientated students in technical schools to give them practical experience which is otherwise hard to come by.

These satellites are very handy for the beginner to gain experience of satellite techniques. Elsewhere the tendency has been to go for technically sophisticated satellites, which are expensive and difficult for the beginner to use.

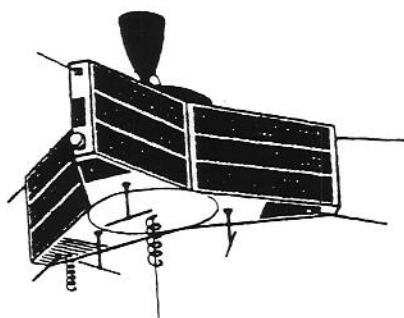
We have evidence that a lot of amateurs who would otherwise have a go at satellite communication, give up once they find how expensive and complicated the present satellite sphere has become. It is very

interesting to note how, since the launch of the latest Russian satellite RS 12 which uses familiar amateur frequencies, a steady stream of new calls has been heard on the air. It is ideal for the beginner in the amateur radio satellite field, as it receives earth signals in the 15 metre band and re-transmits back to earth in the 10 metre band. This enables those with only the usual amateur radio station equipment to participate without having to equip themselves with expensive specialised receivers, transmitters and antennas.

Suggestions for keeping the Russian amateur radio satellite scene going have varied from sending them money to help keep the existing set-up in operation, to purchasing the whole outfit! In this connection, it is rumoured that 'commercial interests' have offered a large sum of money to take over the amateur side of the activities and use it for commercial purposes! Heaven forbid!

The matter is probably the concern of the IARU. AMSAT-UK and IARU Region 1, have been in consultation over the matter and it is hoped their deliberations will come up with something which will keep the Russian amateur radio satellite activity going along the lines it has followed in the past.

Mere DX information



TL8/FC10MZ/P-Cental Afrikanske Republik er QRV. Han bliver i Den Centralafrikanske Republik i to måneder, så der er muligheder. QSL blev i sidste øjeblik ændret til F2BJ.

JD1/JA3GEP-Ogasawara Island ekspedition er stadig igang. Han skulle være på cirka 2050-UTC den 14 juni og QRT cirka 2359UTC den 16 juni. QSL til JA3GEP.

5T-Mauritania i planlægningsfasen af Ahmed, CN8GI. Han er blevet inviteret til 5T af deres radio amatør organisation. Ingen datoer endnu. **ZC4SAT**-U.K. base på Kypern skulle komme igang snart.

C30/ON4ADC-Planlagt til 14 juli indtil 1 august. Andorra har været i luften før - men mange mangler den. QSL ukendt.

JW/DL6DBN-Svalbard planlagt fra 19 juli til den 31. Qsl ukendt. Antagelig til DL6DBN.

TY1PS-Skulle være i luften. Han bor i Benin, så der skulle ikke være den store hast.

Andre ekspeditioner i planlægningsstadiet.

9X5LJ - Rwanda - ingen dato

9K2 - Kuwait- muligvis juli

HZ - Saudi Arabien - muligvis juli

TU2BB - Ivory Coast - sidst i maj + to første uger af juni.

EA8 - Kanariske øer - 1-16 juli.

9H3KA - Malta - 5-25 juni.

DX-Meldungen

Frank, DL6DBN, kündigt eine Satelliten-Expedition von Svalbard/Spitzbergen vom 19. bis 31. Juli an. Sein Rufzeichen wird JW/DL6DBN/P sein. Da Frank nur mit einer leichten Ausrüstung (10 kg) «bewaffnet» ist, beschränkt sich seine QRV-Zeit auf zwei Stunden pro Tag. QSL's gehen an sein Home-Call via Bureau. (Info via DL6DBN).

Planned for June 15th-17th. JD1 (Ogasawara) by JA3GEP. QSL to Mikio Mouri, 1-1-14 Nomura, Kusatu, Siga 525, Japan. (Info via E.S.DX)

! Nicht vergessen! !

Die aktuellsten OSCAR-News finden Sie in Ihrer Packet Radio Mailbox.

73, Thomas Frey, HB9SKA

AMSAT-UK SECRETARY HONOURED

READERS MAY HAVE already read that Ron Broadbent, G3AAJ, AMSAT-UK's Honorary Secretary, was honoured earlier in the year, by receiving the 'Amateur of the Year Award', donated by *Ham Radio Today* magazine.

We cannot let this honour go without adding our congratulations to him and saying that he certainly deserved it. It would be hard to find another radio amateur who has given so much time, hard work and devotion to our hobby of amateur radio. It is good too, to see someone who has put this effort into one of the less popular specialities of amateur radio being selected for the award. Makes one feel too that 'satellites' have a far greater interest to the amateur radio fraternity than is often thought.

SARA - THE SAGA CONTINUES

RETURNING TO THE satellite SARA, the matter seems to boil down to 'Just what is an Amateur Radio Satellite?'. Patrick Hamptaux, ON1KHP, President of BELAMSAT, who are much involved with SARA, makes a very strong case supporting the project. On the supposition that an amateur radio satellite is one which supports educational and scientific projects, self-training in satellite techniques, etc, SARA does fulfil these criteria.

He makes the point that it was built to make interesting experiments that could be used by as many people as possible and to let them know how amateur radio can help in scientific experiments. He asks radio amateur satellite enthusiasts to get in touch with their local astronomy clubs and with the science teachers in their local schools. His point that the Project may be of use in amateur propagation studies would seem to be a valid one.

Perhaps a recommendation from the AMSAT Board of Directors, who recently discussed the matter, could serve as a very useful guide-line for future decisions on the amateur radio status of a satellite.

The AMSAT Board of Directors Meeting on Sunday, 10 Nov, 1991, made the following recommendation:

"We encourage amateur scientific satellites from any source so long as they meet the following criteria:

- 1) Data be publicly available with published formats (preferably before launch)
- 2) There is an amateur radio operator involvement and only licensed amateurs operate the control stations for these satellites.
- 3) Frequency coordination before launch with the amateur satellite community.
- 4) Notification of official bodies via IFRB (International Frequency Registration Board) of filings in adequate time for comment before launch.

The Seventh AMSAT-UK Colloquium

30 July 1992 - 2 August 1992.

Our Annual Colloquium is again to be held at the University of Surrey at Guildford, England. This venue is by popular demand, and voted as such at the last AGM.

The Colloquium consists of a series of Talks, Lectures, and demonstrations right across the range of Amateur Satellite activity. It is arranged to provide delegates with a complete educational and fun weekend, for the beginner to the advanced technical person. In addition delegates can talk to the very engineers who design, build, Command and launch our satellites.

There will be a large number of people who give their time and money to provide you with the items that are used in this branch of amateur radio. Look down the pages of any of the AMSAT newsletters world wide, and you will meet the big names of the satellite groups at Surrey this weekend. Anyone who is anyone in AMSAT will be there. You will make lots of friends, beware!

All delegates giving lectures are very willing and approachable to anyone who wishes to ask them questions, either at the Lectures, or at the Bar in the evening. Come along and test the water!. There are about 50% of Overseas members present and ALL are very interesting people to talk to. The remark also goes for our own UK members. So come along and put your points of view as well.

All and everyone is welcome. However!

1) You can only attend if you wish to enjoy yourself and mix with fellow delegates and give them some of your knowledge.

2) Thursday is INTERNATIONAL POLITICS DAY, when IARU, AMSAT, and National Radio Club delegates progress details for the next meetings of International Meetings, hopefully with YOUR input to guide them.

3) No politics from Friday morning onwards. Except in the Bar. Just FUN, Information flow, and work by all lecturers.

Items on the Agenda:

- 1) Phase 3D Updates from the 1992 Design Meeting.
- 2) KITSAT information on operations. Launch date approx. same time as Colloquium. You may see it in real time?
- 3) Tours of the UOSAT Command Stations.
- 4) Latest information on the recent WARC'92/IARU Meetings in Spain and Vienna.
- 5) Russian Satellites, RUDAK system and operation.
- 6) Packet satellites, their operation. (and much, much more)

The full programme will be ready for July 1st when all papers are expected at the AMSAT-UK office. These will be published as The Proceedings of Colloquium'92, for sale to delegates and others as in recent years. Note: We only print 250 copies.

In addition to Lectures there will be a Competition for the Most Enjoyable Speaker on any subject. Demos. of various automatic antenna rotation equipment. Trade stands. The Colloquium Raffles. and excellent company.

The Colloquium Dinner and Social. This year we have gone up market and are having Dinner in the Chancellors Restaurant and Banqueting Suite. (Dress optional) A famous Jazz Band to play for you after dinner. The usual Junk sale, but only for 45 minutes. Good Beer and plenty of talk about satellites. Nobody goes away from Colloquium without gaining a lot of knowledge. We have ways off makin you learn.

Prize for the best piece of Home brew satellite equipment displayed. (Bring your gear please). Prizes for the longest and shortest distance travelled to Colloquium this year. (QSL card or Lat/Long please).

The Booking Form is in this issue. Please use this for your booking and details of your stay. (Please copy and give to a friend as well). Send the completed form plus remittance to the address below, which must be received at the University of Surrey by the 1st July 1992, to guarantee your accommodation.

DAY ONLY bookings for Lectures and Lunches must be received by the 15th July. Please use same Booking Form:

Send completed forms to:-

Jackie Brookes. AMSAT-UK Colloquium '92.

Electronics Department, University of Surrey.

Guildford, Surrey. GU2 5XH. England.

If using Credit Card for payment you may FAX both sides of the Booking Form to AMSAT-UK office. +44 (081) 989 3430.

Please note: Jackie Brookes is a staff member of the University who works for AMSAT-UK in her spare time, gratis. She is not able to send any other services to members, Book Orders, Membership of Amsat-UK, or even reply to members Technical Queries. The above address is for BOOKINGS to the Colloquium ONLY.

All other enquiries should be addressed to AMSAT-UK. including Enquiries for Exhibition Stand-space for the 31/7/92-2/8/92. Address:-G3AAJ. AMSAT-UK, London. E12 5EQ. Tel: 081 989 6741. Fax: 081 989 3430.

A receipt and confirmation will be sent to you as soon as possible by the Registration Officer. Bookings after 1st July will be subject to a surcharge. Such bookings are subject to availability of the University to provide accommodation at short notice, as attendance is limited to 185 persons per Day/Night.

Please read and fully understand the Notes sent to you with your receipt. They are written for the well being and guidance of all concerned and with experience gained during past meetings. Your day-time phone, Fax, CIS number would be of help to us in an emergency. Please leave your hand-held TX at home. Bring your camera and let Oscar News Editor have some photos this year. Hint.

X



Group Photos of last year, s Colloquium.

If you want a copy, for collection at this years meeting, please order at least before JUNE 15th. We will have them ready for you in the AMSAT-UK office at the Colloquium. Approx. £5:00 each. See previous Oscar News.

Please ask by phone if uncertain on any item, we are willing to give every assistance, even to suggestions of other events prior to and after this weekend which you may want to see as part of a holiday. Pro-forma Accounts can be sent to delegates for their Finance Dept's., but the Account must be settled prior to start of Colloquium.

The Booking Form may be copied for use by other delegates. Please send a copy to your local radio club as soon as possible, you never know, your club Hon.Sec. may want to organise a Coach Part to attend on one of the days. Try him out! Please help us by only using one Booking Form for each delegate attending. Please write clearly, in block capitals or better still, type. Remember to this old and infirm Englander crossed sevens look like 4 with bad handwriting.

The Conditions of our Agreement with University of Surrey Conferences Ltd are many and varied, but the below-mentioned is one off:

All visitors will make an undertaking: To observe the conditions of attendance made by the University of Surrey at all times, and are only permitted to enter buildings and lectures pertaining to Colloquium '92. at any time. Entrance to Administration Buildings, Libraries, Laboratories and Students Quarters are not permitted. (All delegates will be sent a car parking pass, a Map and University Information sheet. There is Video and Patrol security on University grounds and buildings.)

It is requested that ALL delegates who wish to input to Colloquium '92 send Papers or at least an Intention to Speak to AMSAT-UK office as soon as possible. In any case PAPERS before JUNE 15th. This will enable us to get the Programme and the Papers printed on time. Gentlemen. Please help me to get less hassle this year and send in your intentions and Papers early.

The University of Surrey charge AMSAT-UK big money for the use of their facilities, and we have paid a few thousand quid deposit at this date, to secure the SIX days that we will have the use of their facilities. (Some of us have to be there before, and after the event.) We try to make no profit on your costing. BUT. We do rely on Book Sales to give a bit of profit for the Satellite Funds. The Van, Petrol and Courtesies to Guests cost us as well. Bring some loose change.

We have been able to again secure the extra 1991 built En-suite rooms, plus an excellent venue for the Colloquium Dinner, and some extra entertainment other than G3AAJ's ugly mug doing the Junk Sale. We have also NOT cut back on Meals, Rooms, or Lectures. Your costing is the same as last year excepting for some additional VAT we have to pay for some items, most of which we have NOT

added to your fees. We have been charged 11% over last years costs by UOS.

If you think you can help in any way do give me a call. If you feel you can put something into our annual meeting please speak up, your input will be most welcome. There must be a few bright ideas out there somewhere.

The Annual General Meeting of AMSAT-UK is to be held at 6PM on Friday 31st July in G. Lecture Hall at the University. ANY member is welcome to attend at no cost, but we must ask you to advise us of your attendance before hand if not also attending the Colloquium. We will gladly issue you with a Parking Permit and Security Pass. The AGM usually lasts one hour.

Trade Stands: There is room for a few more Traders to display their wares on Fri, Sat, Sunday of the weekend. Rates are very reasonable if one member of your staff is a delegate as well. Groups or Members (Non-profit) wishing to Display may do so free, if members of the Group/Club are also delegates. There will be no charge to lady assistants attending with Traders. Meals can be arranged.

Raffle Prizes: We need a few members to donate raffle prizes and saleable Junk to make the Dinner go with a swing. Any offers can be sent to me at 94, Herongate Rd. for transportation in the large van we hire for this shindig.

Sponsors: We are open to any Company or Club who wish to advertise their saleable goods or services taking on a Sponsorship of small items which our members can remember this years Colloquium. T Shirts, Pens, Note-pads with your Company name and Logo. Floppy Discs with your advert on. You name it, we will give it loud publicity in Oscar News and at Colloquium. Think about it and contact AMSAT-UK.

Serious subjects: CAR PARKING. & Keys.
The University charge £30.00 to remove a clamp. Use the Car Parks. AMSAT-UK were charged £10:00 to replace two sets of room keys last year. Need we say more?

Finally, would some of the Big Names, those I call friend, in the AMSAT organisations volunteer and Preside over a morning or afternoon session during any day of the weekend. We do need your help on this, as your frail and infirm Secretary finds it harder to break somebodys' arm to do this important job every year. If you could also present your Paper at the beginning of your session, so much the better. Now it's up to you.

The Booking Form/Notes are available on your IBM disc for uploading to BBS in your area. Send a Mailer to AMSAT-UK for immediate response.

Thanks. G3AAJ. 24/4/92.

The 1992 AMSAT-UK Colloquium Booking Form.

30th July to 2nd August 1992.

DELEGATE BOOKING DETAILS.

Please read the whole of this and reverse side before deciding on your options.

NAME (Print).....Callsign.....

ADDRESS(Print).....

.....POST CODE.....

Country.....TEL:.....FAX.....

Table:B.

Standard Overnight Accommodation: Single Room with H.&C. Towels. Tea & coffee in all rooms. Dinner and Full English Breakfast, Hall Bar. Free Parking. Showers & WC adjacent.

Table:C.

En-suite Overnight accommodation: Single Room, Shower/WC. Towels. Tea & coffee in all rooms. Dinner and Full English Breakfast, Hall Bar. Free Parking.

Table:A.

Day rate: All lectures, Tea/coffee/Snaack Breaks, Three Course lunch, Hall Bar. Colloquium Presentation Folder and gifts, Trade shows, Videos, Entry to Best Item of home-brew gear. Raffles, Demos. & Traders Show. ID badges etc, etc

Please CIRCLE (YES or NO) for your DAILY attendance:

Table A. Daily Attendance is from 9 AM to 6 PM only.

30th July	31st July	1st August	2nd August
Thurs. £27:25	Fri. £27:25	Sat. £27:25	Sun. £27:25
AMSAT/IARU Space Politics	Colloquium & AGM	Colloquium & Dinner/Social	Colloquium & Courtesies
YES NO	YES NO	YES NO	YES NO

Please CIRCLE (YES or NO) for Overnight attendance with STANDARD ACCOMODATION and Full 24 hour Package.

Table B. 24 hour package is from 9 AM. Daily.

29/7/92. Dinner, Bed. Breakfast.	AM 30th July to 10 AM 31st July	AM 31st July to 10 AM 1st Aug.	AM 1st Aug. to 10 AM 2nd Aug.	AM 2nd Aug. to 10 AM 3rd Aug.	2/8/92 Dinner Bed. Breakfast
£30:00	£52:50	£52:50	£52:50	£52:50	£30:00
YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

Please CIRCLE (YES or NO) for Overnight attendance with EN-SUITE ACCOMODATION and Full 24 hour Package.

Table C. 24 hour package is from 9 AM. Daily.

29/7/92. Dinner, Bed & Breakfast.	AM 30th July to 10 AM 31st July	AM 31st July to 10 AM 1st Aug.	AM 1st Aug. to 10 AM 2nd Aug.	AM 2nd Aug. to 10 AM 3rd Aug.	3/8/92 Dinner Bed & Breakfast.
£50:50	£72:50	£72:50	£72:50	£72:50	£50:50
YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

Please note that the Colloquium Dinner is included in the SATURDAY overnight accomodation calculated on a three day package, we also pay Value Added Tax on above prices as charged to AMSAT-UK by UOS.

Signature.....(You may just indicate date/time arrival-departure, ie, circle boxes, we will debit your Credit Card to correct amount and send receipt voucher.)

The Colloquium Dinner. (No extra charge)

Saturday 1st August, 1992 at 7 PM.

£20:00 per Ticket if not paying overnight accommodation

The above event is also in part to allow local radio amateurs to attend and meet UK and Overseas delegates during this evening entertainment. Bars: 6pm-11:45. Attendance of The London Jazz Kings Band. Five Course Dinner and Wine. Large Prize Raffle(s) and small Junk Sale. (You may invite a paying guest for the evening)

Accommodation.....nights @ £..... =£.....

Daily Lectures:.....days @ £..... =£.....

Saturday Dinner:Tickets @ £20:00 =£.....

(Guests Name(s).....) =£.....

I enclose the TOTAL AMOUNT. =£.....
(This includes VAT)

I enclose 50% of the TOTAL SUM and =£.....
promise to pay balance before 1/7/92

Enclosed please find my Cheque, (Sterling only). Cash, VISA, Access details. Balance(s) as appropriate.

NAME:.....Date:.....

CARD Number:...../...../...../.....Expiry:.....

Signature:.....AMSAT-UK No.....

Notes: Payments received for THREE or more Overnight accommodation bookings may deduct £10:00 from TOTAL payment if received by 1st July at University of Surrey. (Jackie Brookes. Colloquium Booking Officer.) There is a surcharge of 20% on ALL bookings after 10th July 1992. Cancellations after 1st July also carry a charge of 20 % of total. We are sorry to have to apply these conditions but we also have to adhere to Terms and Conditions of acceptance to secure the venue. It is for this reason that NO payments will be accepted at the Registration without agreement by The Secretary of AMSAT-UK prior to arrival. Educated by Experiences.

JB.....RJCB.....SG.....BANKED..