

Join us at the
MAARS Christmas Party!!!



**Friday, December 10th, 6 P. M. at the
Manhattan Church of Christ,
2510 Dickens Ave., Manhattan, KS.**

Bring a dish to share and a gift of \$10 or less for the gift exchange.

27 Day Solar Predictions

| Date | Flux 10.7 cm | A Index | Kp Index |
|--------|-----------------|---------|-------------|
| Dec 01 | 83 | 7 | 3 |
| Dec 02 | 83 | 5 | 2 |
| Dec 03 | 85 | 7 | 3 |
| Dec 04 | 85 | 7 | 3 |
| Dec 05 | 85 | 5 | 2 |
| Dec 06 | 85 | 5 | 2 |
| Dec 07 | 85 | 5 | 2 |
| Dec 08 | 85 | 5 | 2 |
| Dec 09 | 85 | 5 | 2 |
| Dec 10 | 85 | 5 | 2 |
| Dec 11 | 85 | 7 | 3 |
| Dec 12 | 88 | 7 | 3 |
| Dec 13 | 88 | 7 | 3 |
| Dec 14 | 88 | 7 | 3 |
| Dec 15 | 85 | 7 | 3 |
| Dec 16 | 85 | 5 | 2 |
| Dec 17 | 80 | 5 | 2 |
| Dec 18 | 80 | 5 | 2 |
| Dec 19 | 80 | 5 | 2 |
| Dec 20 | 80 | 5 | 2 |
| Dec 21 | 80 | 5 | 2 |
| Dec 22 | 80 | 5 | 2 |
| Dec 23 | 80 | 5 | 2 |
| Dec 24 | 80 | 7 | 3 |
| Dec 25 | 80 | 7 | 3 |
| Dec 26 | 83 | 5 | 2 |
| Dec 27 | 83 | 5 | 2 |

Solar Flux: This flux number is measured from the amount of radiation on the 10.7cm band (2800MHz). It is closely related to the amount of ultraviolet radiation, which is needed to create an ionosphere. The lowest possible number for this solar flux is 63.75. Single hop propagation already starts at 70 in lower latitude areas. Worldwide long distance propagation (DX) may turn up already with a solar flux at 120. From experience, an average solar flux of 170 seems to be ideal for 10m-20m bands QRP DX with good possibilities during these conditions to reach every possible part of the globe with a simple dipole running as low as 5 Watts!

A- and K-index: Geomagnetic activity indices, high indices (K:>5 or A:>20) means stormy conditions with an active geomagnetic field.

Your membership in MAARS is important to help keep the club alive and maintain equipment. If you haven't already done so please consider joining MAARS at a prorated fee. We also have a student rate available. Dues should be mailed to MAARS, P.O. Box 613, Manhattan, KS 66505.

THE TREASURER'S REPORT November 1st 2010 to December 1st 2010 Submitted by: Christine Chainey KCØYJN, Treasurer

As of November 1, 2010

| | |
|----------------------------|--------------------|
| Cash on Hand | \$110.00 |
| Checking account | \$ 61.56 |
| Savings account | \$950.39 |
| TOTAL | .\$1,121.95 |

Income:

| | |
|----------------|----------|
| Dues | \$190.00 |
|----------------|----------|

Expenditures:

| | |
|----------------|---------|
| AT&T | \$35.50 |
|----------------|---------|

As of December 1, 2010

| | |
|----------------------------|--------------------|
| Cash on Hand | \$110.00 |
| Checking account | \$216.06 |
| Savings account | \$950.39 |
| TOTAL | .\$1,276.45 |

The more active, the more unstable propagation with possible periods of total propagation fade-out. Especially around the higher latitudes and especially at the polar regions, where the geomagnetic field is weak, propagation may disappear completely. Extreme high indices may result in aurora propagation, with strongly degraded long distance propagation at all latitudes. Sporadic-E is strongest during low indices. Low indices result in relative good propagation, especially noticeable around the higher latitudes, when transpolar paths may open up. Maximum K-index is 9, and the A-index can exceed well over 100 during very severe storm conditions, with no maximum. The ARRL often reports the K-index from the Alaskan station where this index is known as the College K-index. Other stations reporting K-indices include Planetary and Boulder. In contrast, the A-indices are usually reported for the

Planetary station only.

The higher the K-index, the more unstable propagation becomes, the effect is stronger at high latitudes, but weaker near low latitudes.

When storm level is reached, propagation strongly degrades, possibly fade out at high latitudes. **Solar Flux:** This flux number is measured from the amount of radiation on the 10.7cm band (2800MHz). It is closely related to the amount of ultraviolet radiation, which is needed to create an ionosphere. The lowest possible number for this solar flux is 63.75. Single hop propagation already starts at 70 in lower latitude areas. Worldwide long distance propagation (DX) may turn up already with a solar flux at 120. From experience, an average solar flux of 170 seems to be ideal for 10m-20m bands QRP DX with good possibilities during these conditions to reach every possible part of the globe with a simple dipole running as low as 5 Watts!