

NRO 速報

NRO Herald
NO.83

June 19th, 1986

Radio Sources Observed at Nobeyama

| | |
|----------|---------|
| NRAO 150 | 2 tapes |
| 1803+784 | 1 |
| 3C454.3 | 3 |
| 3C84 | 12 |
| OJ287 | 1 |

56 MHz Bandwidth by Mk III

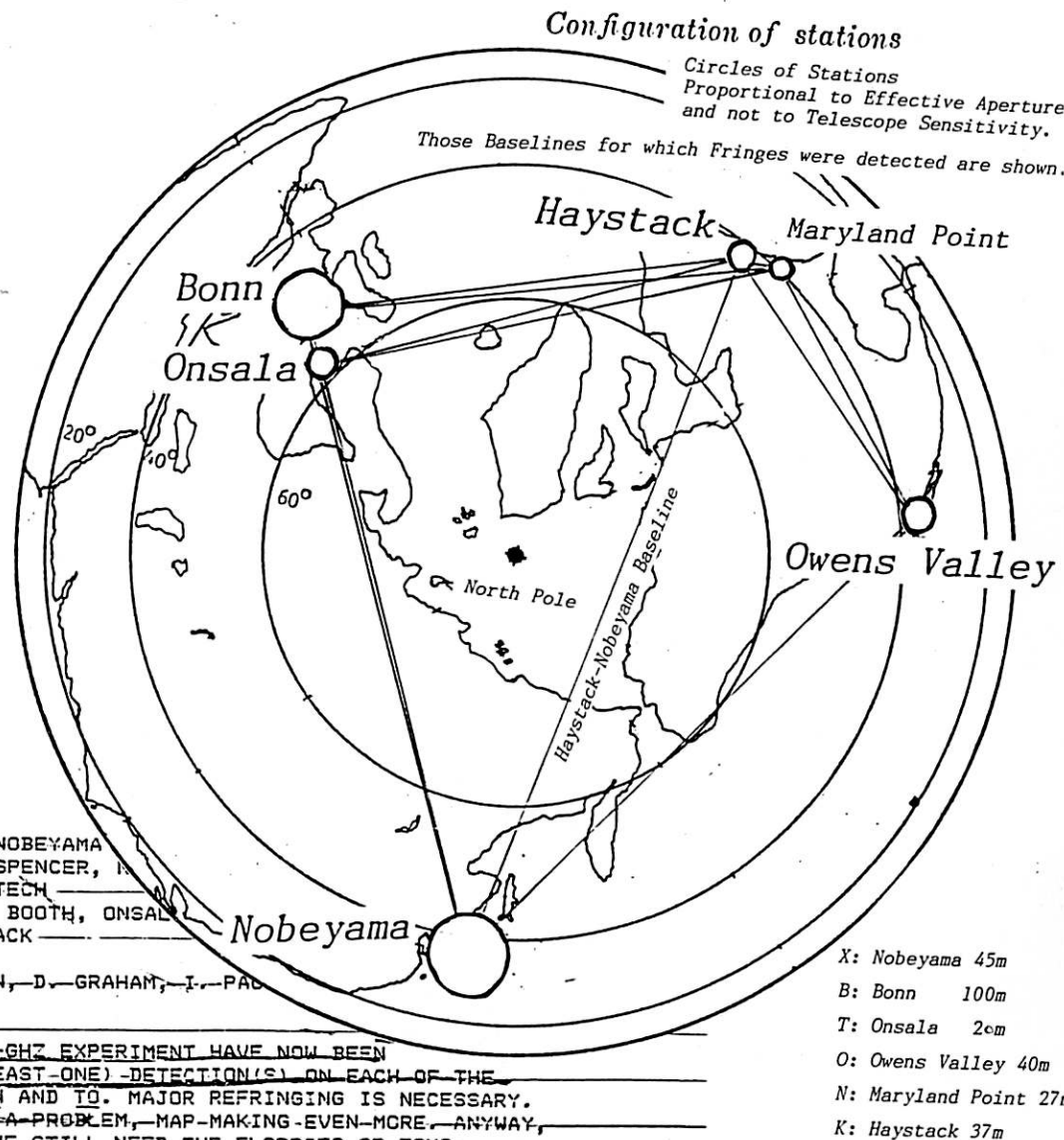
JUNE 13, 1986

TO: DRS H. HIRABAYASHI, NOBEYAMA
K. JOHNSTON, J. SPENCER, I.
C. LAWRENCE, CALTECH
B. ROENNAENG, P. BOOTH, ONSALA
A. ROGERS, HAYSTACK

FROM: N. BARTEL, V. DHAWAN, D. GRAHAM, I. PAG

DEAR FRIENDS,
ALL DATA OF OUR GLOBAL 43-GHZ EXPERIMENT HAVE NOW BEEN
CORRELATED. WE HAVE (AT LEAST ONE) DETECTION(S) ON EACH OF THE
BASELINES EXCEPT ON BO, XN AND TO. MAJOR REFRACTING IS NECESSARY.
CALIBRATION IS DEFINITELY A PROBLEM, MAP-MAKING EVEN MORE, ANYWAY,
WE HAVE COME A LONG WAY. WE STILL NEED THE FLOPPIES OR TSYS-

A Breakthrough for Millimeter-Wave VLBI at Nobeyama



Efforts for Fringes at 43GHz at Nobeyama

43GHz Phase-Locked 1st Local Oscillators Evaluation
1985 Spring, Summer

43GHz VLBI Experiment with Haystack
Combined with 10GHz Band
Feb. 17th, 1986

43GHz Band VLBI Receiving System Evaluation
April 1986

Some Grade-Ups

43GHz Global Experiment (Present Experiment)
May 10-11, 1986

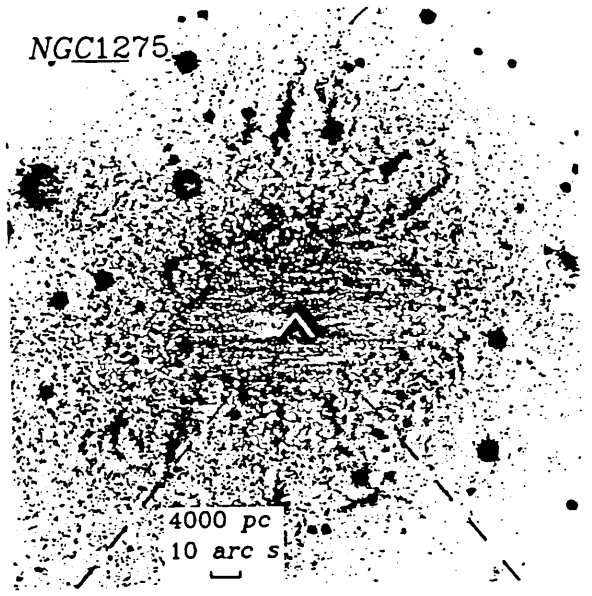
Fringes Detected !

Some More Improvements will Follow.

Nobeyama-Haystack Baseline Generated the Shortest Fringe Spacing Ever Obtained.
(Baseline Length 9530 km, 1.4×10^9 wavelength, 0.15 milli-arc-second)

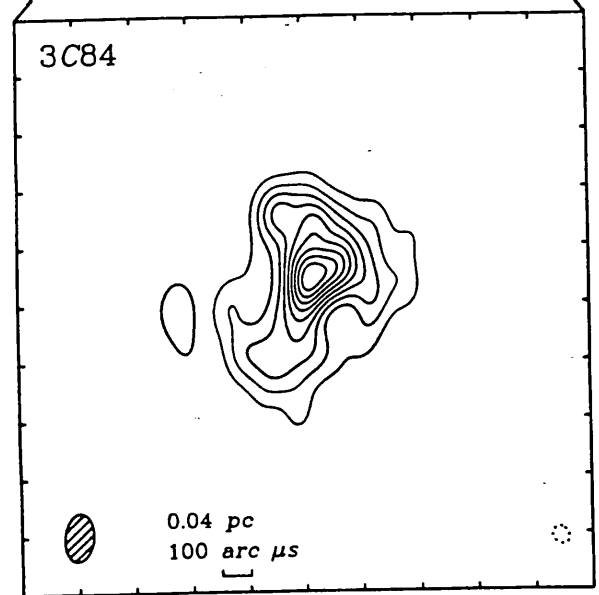
Global 43GHz VLBI Experiment on May 10-11, 1986 Proved Successful !

NGC1275



4000 pc
10 arc s

3C84



0.04 pc
100 arc μ s