# IRAM Newsletter (Special Issue)

Number 40 July 30th, 1999

### Accident of the téléphérique of the Plateau de Bure

On July 1st, 1999, twenty people were killed in a dreadful accident of the téléphérique that gave access to the Plateau de Bure observatory. As of this writing, the cause of the accident is still unclear. Among the victims were five IRAM employees, key men in the operation of the téléphérique, the maintenance of the observatory, the clearing of the interferometer tracks in winter, and in the assembly of new antennas. The IRAM employees who lost their lives were:
**Bernard Aubeuf**, born in 1954 at Varces (Isère), and had worked on the téléphérique since September 1984. In June 1991, he was appointed chief of the team responsible for the téléphérique operations and maintenance. In December 1991, he was injured in an accident while working on the roof of the téléphérique, but with great perserverance and great personal courage, he recovered and was able to resume his work. Bernard Aubeuf was a real professional, and had the full confidence of the IRAM staff. He was very enthusiastic and we will very much miss his lively, friendly conversation and his very serious, high-quality work.

**Patrick Vibert** was born in 1959 at Andrézel (Seine-et-Marne). He was the chief of the team of manual workers on the Plateau, and worked on the téléphérique, general maintenance, snow clearing of the interferometer tracks, and helped in the construction of the antennas. Patrick Vibert was endowed with exceptionally good humour and generosity, and was very proud of his two adopted children. The family of Patrick Vibert was afflicted with a double tragedy: His young nephew, Mickaël Eymeoud, working for the construction company Queyras on the extension of the interferometer tracks, was also killed in the accident.

**Henri Gontard** was born in 1945 at Saint-Etienne-en-Dévoluy (Hautes-Alpes), and was the father of two children. He was on the maintenance crew of the Plateau de Bure station, and worked on the téléphérique, general maintenance, snow clearing of the interferometer tracks, and helped in the assembly of new antennas. "Rick" Gontard was a real montagnard, with an excellent knowledge of the mountains and the natural environment. He had been a monitor at the nearby ski station, and was an authoritative source on the snow conditions and the avalanche danger in the valleys descending from the Plateau de Bure. He was very polite and friendly, very strong, and always helpful.

**Francis Gillet** was born in 1949 at Saint-Etienne-en-Dévoluy (Hautes-Alpes), and was the father of three children. He was a temporary employee who served on the maintenance crew of the Plateau de Bure station, and in the past, had helped in the assembly of the antennas. In the winter, he worked as a monitor at the nearby ski station. Francis Gillet was interested in community affairs, and was active as an elected representative in the local town Council.

**Roland Prayer** was born in 1969 at Gap (Hautes-Alpes), and leaves a wife and child. He was a temporary employee who worked as a mechanic at the Plateau de Bure station, helping with antenna maintenance and the assembly of new antennas. In the winter, he worked as a monitor at the ski station below the Plateau. He was very friendly, and happy to be working in the Plateau de Bure environment.

In addition to the families of the IRAM employees, the tragedy also struck fifteen other families, those of the workers of three different companies who had activities on the Plateau:

**the Entreprise Queyras** of Saint-Crépin (Hautes-Alpes), a construction company engaged in the civil work for the extension of the north arm of the interferometer. This company lost nine workers, most of them young men:
Romain Delfosse (Gap),
Mickaël Eymeoud (Gap)
Pascal Mahe (Gap)
Norbert Merella (Guillestre)
Bruno Nougier (Le Noyer)
Jean Sabar (Gap)
Fabien Tonda (Saint-Crépin)
Senol Topal (apprentice at Egleton)
Frédéric Villar (Le Noyer)
**the Entreprise Graniou** of Vitrolles (Bouches-du-Rhône), a telecommunications company, that lost four of its employees:
Sylvain Aubry (Vitrolles)
Michel Cannone (Vitrolles)
François Mace (Vitrolles)
Stéphane Paris (Vitrolles)
**the Entreprise Nera** of Gap (Hautes-Alpes), a company specialised in cleaning of industrial sites, that lost two of its employees:
Lucien Koubi (Gap)
Michel Rougny (Gap)

## Solidarity Account

We were all very moved by the messages and expressions of sympathy we received from many colleagues all around the world during the days which followed the terrible accident of the téléphérique. We thank you very much for this expression of solidarity.

Many offered their help. We would like to inform you and through you as many colleagues as possible that a solidarity account has been opened by the Fondation de France to help the families of the victims. A special committee, chaired by the Directeur Général du C.N.R.S. will make sure that the money reaches the families as soon as posible and according their individual needs.

If you consider to send a check, please note that banking fees can be significant. This problem will be reduced if collective donations are made, e.g. at institute level. Checks should be sent to:

INSTITUT NATIONAL DES SCIENCES DE L'UNIVERS
SOUTIEN AUX VICTIMES DE L'ACCIDENT DE BURE
BP 287
3, RUE MICHEL ANGE
75766 PARIS CEDEX 16

The checks must be filled out to the name of:
FONDATION DE FRANCE – BURE

Individual notes of receipt, which could be used for tax deduction purposes, will be sent back to the donators.

*Michael Grewing and Stephane Guilloteau*

## Recovery activities since the acccident of the téléphérique

Following the tragic accident which occurred on 1st of July 1999, psychological support has been organised for the families of the victims to help them as much as possible to cope with the enormously difficult situation. IRAM also set up 6 working groups to analyse the consequences of this accident and to re-organise the work on the Plateau de Bure during the coming months.

One working group was given the mandate to find ways to provide financial help to the families of the victims. Thanks to the support by the CNRS and the "Fondation de France" , the help fund mentioned above has been created.

A second working group is concerned with technical aspects of the accident, including an in house enquiry to extract and review any material from the archives which could be relevant to the understanding of the causes of the tragedy.

A third working group is charged to follow the legal aspects of the accident (the official enquiry, insurance questions, etc...).

A fourth working group has the mandate to study all aspects of running the observatory during the next few weeks/months, i.e. before winter conditions set in. The cable car provided the only regular access to the site, and was used to transport not only the staff, but also every item required to support life on the site (i.e. food, water, fuel, liquid helium for the high frequency receivers, spare components, etc...). At present, access to the Plateau de Bure is by helicopter, weather permitting. The helicopter is also used to transport food and other supplies. To supplement the water supply, snow will be melted and rain water will be collected. - Under these circumstances, observations have restarted on a limited basis

One of the most urgent tasks is the study of options for the logistics during the next winter period. At this point in time it is not yet clear how big a team can be supported on the Plateau de Bure, given the limited means of transport. One of the sub-tasks of this study concerns the question how emergency access to the station can be guaranteed under all possible weather conditions.

The goal of the fifth group is to implement recovery actions for the two major construction activities which were going on this summer, i.e. the construction of the 6th antenna, and the extension of the North track. The first task was to secure the track extension surroundings, which were an active working place at the time of the accident. Since then, all activities related to the track extension are stopped and will probably have to be delayed until the next summer.

The construction of antenna 6 has also been put on halt because the available staff is needed to work on priority tasks such as securing the water supply etc... A further priority during the next few weeks will be the maintenance of the existing antennas, in order to prepare them as soon as possible for the next winter period. There is sufficient supply of components to continue with the construction of antenna 6 for about 7 weeks. However, the decision on when to resume the construction work will be kept pending until a regular working schedule can be established again. Besides many smaller components (carbon fibre tubing, nodes, surface panels, subreflector, quadrupod legs), one major item for antenna 6 is missing. This is the so called "central hub", a key element of the reflector backup structure. This piece has a diameter of 4.4 m and a weight of about 5 tons. Bringing up such a large and heavy piece on the Plateau poses a special problem which needs to be studied.

A sixth working group has been charged to review all possible modes of access to the Plateau de Bure in the long term. Under certain conditions one can envisage that the old cable car can be repaired and be available for the transport of materials on a timescale of several months. This would help enormously for the regular supply of water and fuel during the coming winter months, two critical items on the Plateau. The transport of personnel is, however, another, much more severe problem. The mandate of the group is to evaluate all possible solutions, and to make recommendations in term of safety, dependency on weather conditions, time needed for one rotation, timescale for implementation and cost.

*Michael Grewing*

# Calendar

**Aug. 5th** Regular issue of the Newsletter with Call for Proposals

**Sept 10 th, 1999 24:00h (MET):** Deadline for the submission of observing proposals for the period Nov. 15th, 1999 to May 15, 2000

The IRAM Newsletter is edited by Michel GUÉLIN at IRAM-Grenoble (e-mail address: `guelin@iram.fr`).
In order to reduce costs we are now sending paper copies of this Newsletter to astronomical libraries only. The IRAM Newsletter is available in electronic form:

- by using the World Wide Web: from the IRAM home page (`http://iram.fr/`), click on item "Newsletter" and follow the links...
- by means of an anonymous `ftp` account, opened at IRAM for Internet users. To access those files, please connect through `ftp` to `iram.fr` (or `193.48.252.22`) and read the `README` file. Several subdirectories are available:

| Directory | Contents |
|---|---|
| `/dist/newsletter` | Recent issues of this Newsletter (one subdirectory per issue) |
| e.g. `/dist/newsletter/jul95` | jul95.ps is the Postscript file for the July 1995 issue. |
| `/dist/doc` | Documentation on IRAM telescopes and software |
| `/dist/proposal` | Proposal forms and Latex files to aid proposal preparation |
| `/dist/soft` | distribution files for reduction software |

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  On the first time you should send a message: `SUBSCRIBE IRAMNEWS` *your name*
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  Note that this file server also contains the proposal forms.

The e-mail list IRAMNEWS is used to send warning messages when the Newsletter is available, but also to provide fast information, if needed.
Please keep M. Guélin informed of any problem you may encounter.

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