THE GRAPHICAL SYSTEM AT THE NATIONAL METEOROLOGICAL SERVICE IN GREECE

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1. Hardware

The Greek Meteorological Service acquired its own computer in 1977 and it consists of two Cyber 18-20 systems (each of 64-KW of memory). One of them is dedicated to telecommunications and the other is used as a back-up system to the first and also to run programs of meteorological applications.

The graphical device of the system is an off-line pen plotter, Calcomp 960.

2. Software

The software has been developed by the CDC company (based on the ODSI plotting package) and the following meteorological applications programs are provided:

a) Plotting of surface observations (SYNOPS-SHIPS)

The input is a magnetic tape with SYNOP and SHIP reports, which are decoded. The output is a chart with surface observations, plotted according to WMO recommendations. The observations can be plotted upon two different geographical backgrounds (Europe area - East Mediterranean Sea area). Reports with errors are ignored (see example 1).

b) Plotting of Upper-air observations

The input is a magnetic tape with meteorological messages from which the TEMP and TEMP-SHIP reports are decoded. The output is a chart with any chosen level plotted and the standard upper-air model is used in plotting the reports. The observations can also be plotted on two different geographical backgrounds (example 2).
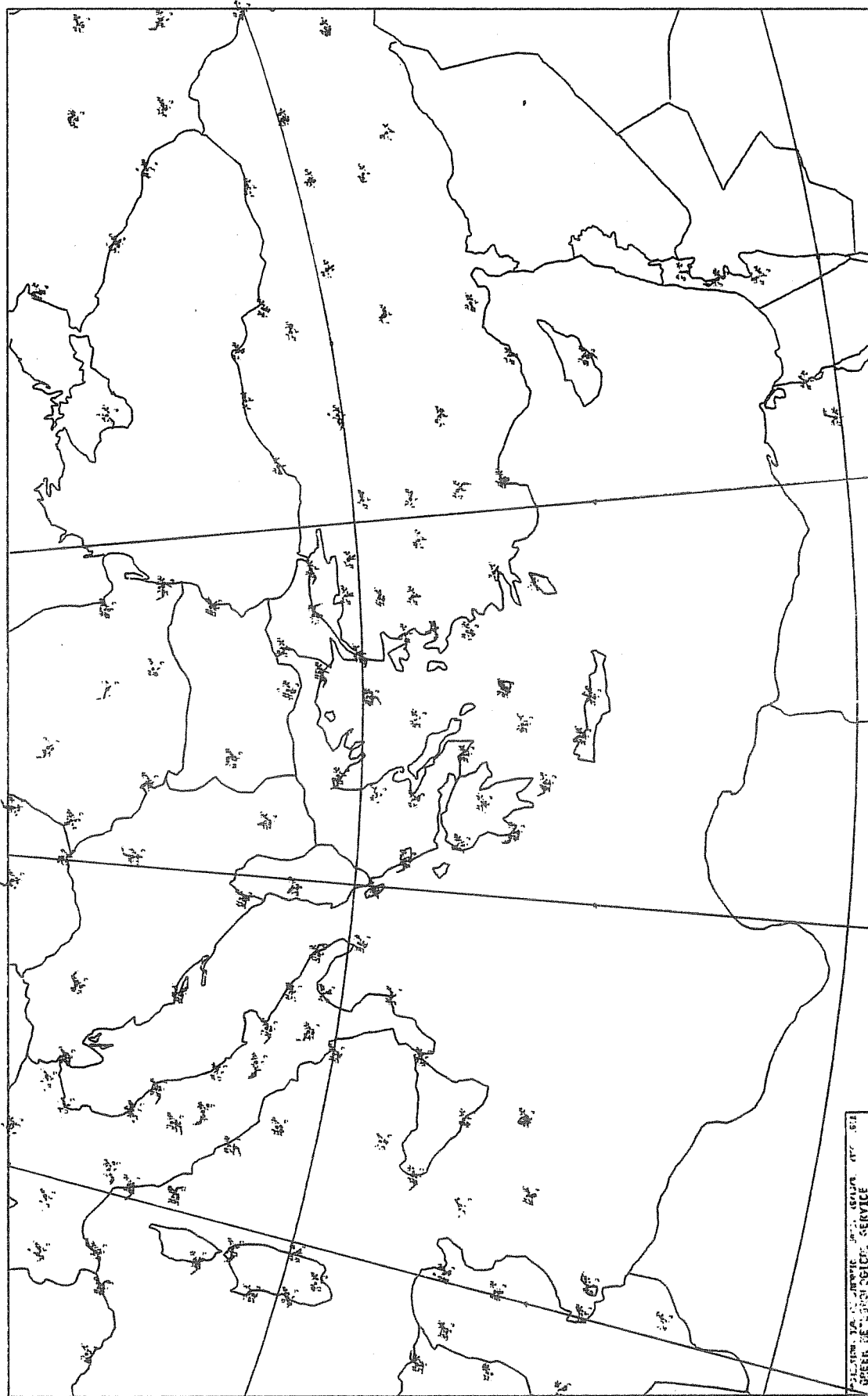
c) Grid-to-isoline plotting

The input is a magnetic tape with grid-point meteorological fields. The output is a chart with contour lines upon a pre-printed geographical background. The isolines are labelled and local highs and lows are indicated. Several fields can be combined on the same background (examples 3-5).

For each ECMWF Field the processing in the computer takes 3 minutes
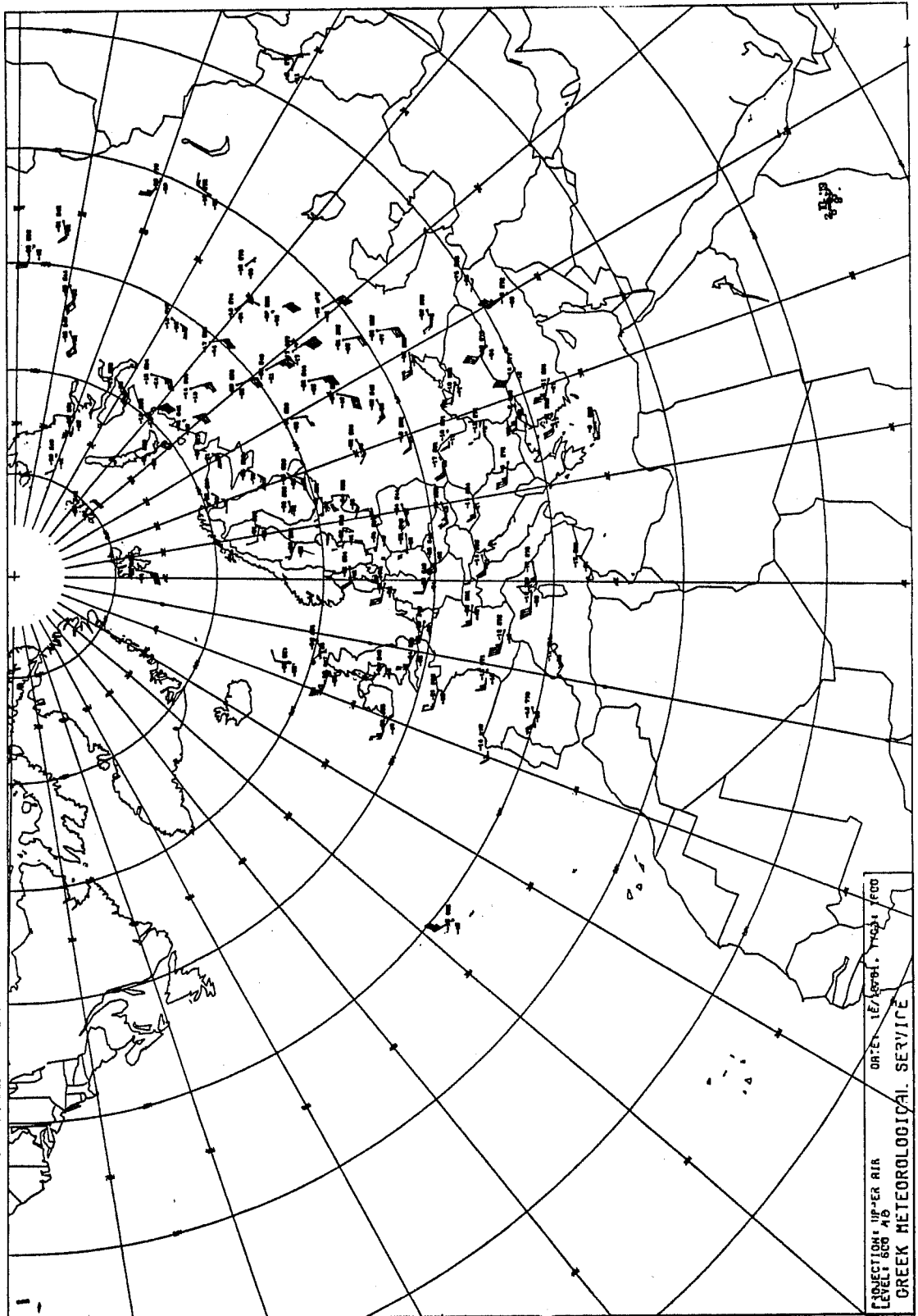and the plotting of the isolines by the plotter another 1-2 minutes.

3.   Plans for the future

It is hoped that the present system will be expanded by adding to
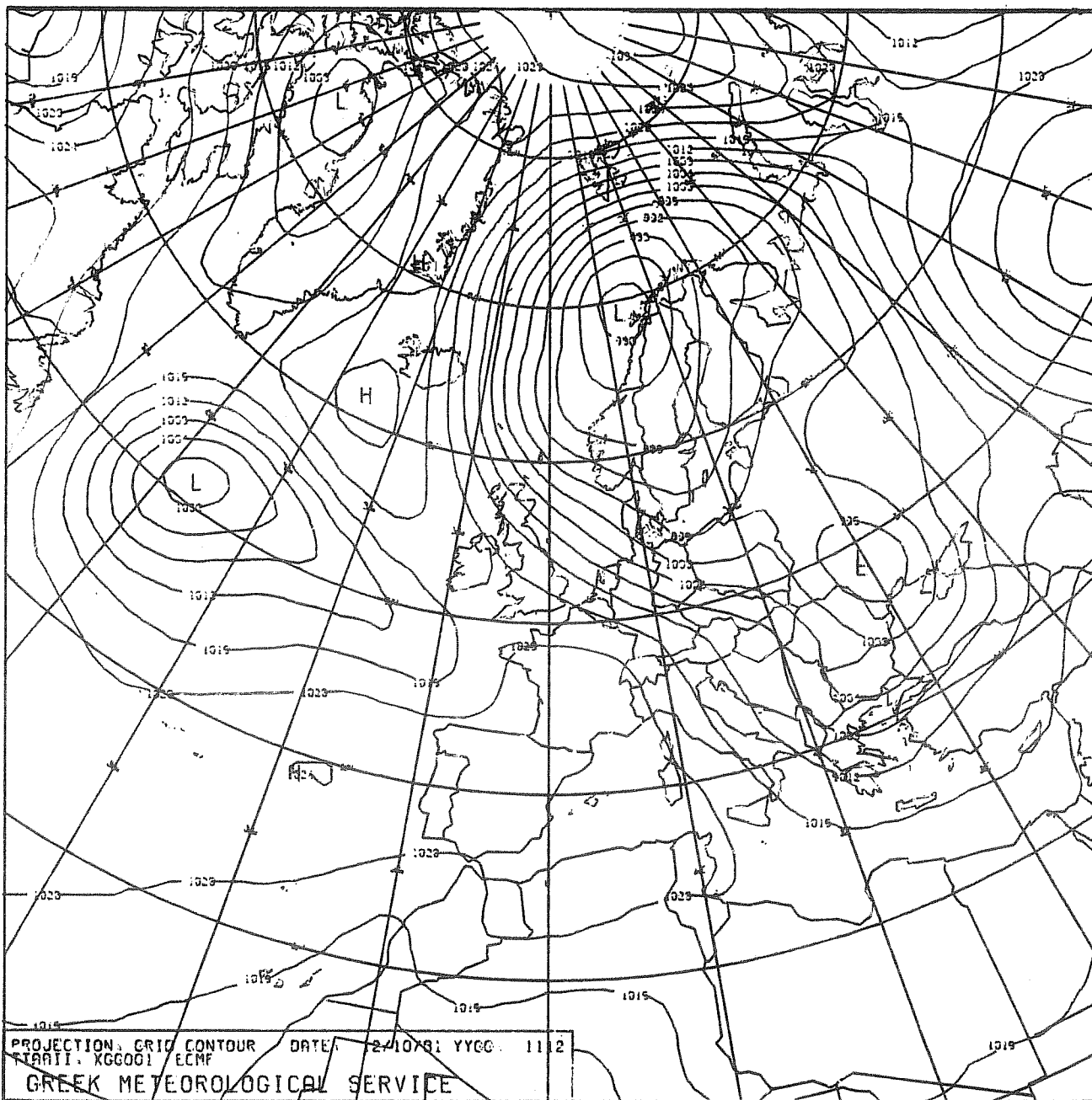it a larger processor and a second plotter.

Example 1

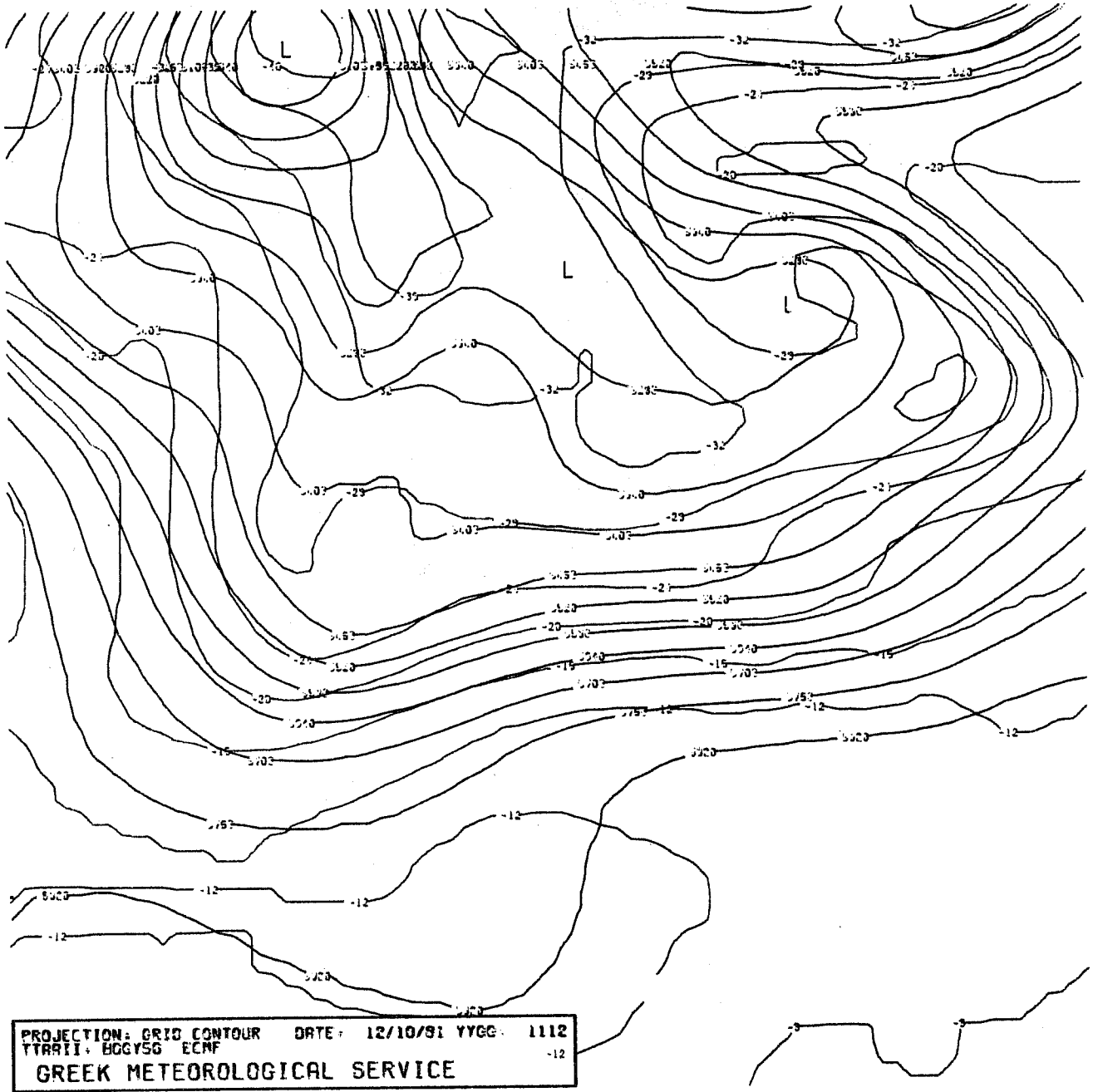Surface synoptic chart – 16.10.81/1200 GMT

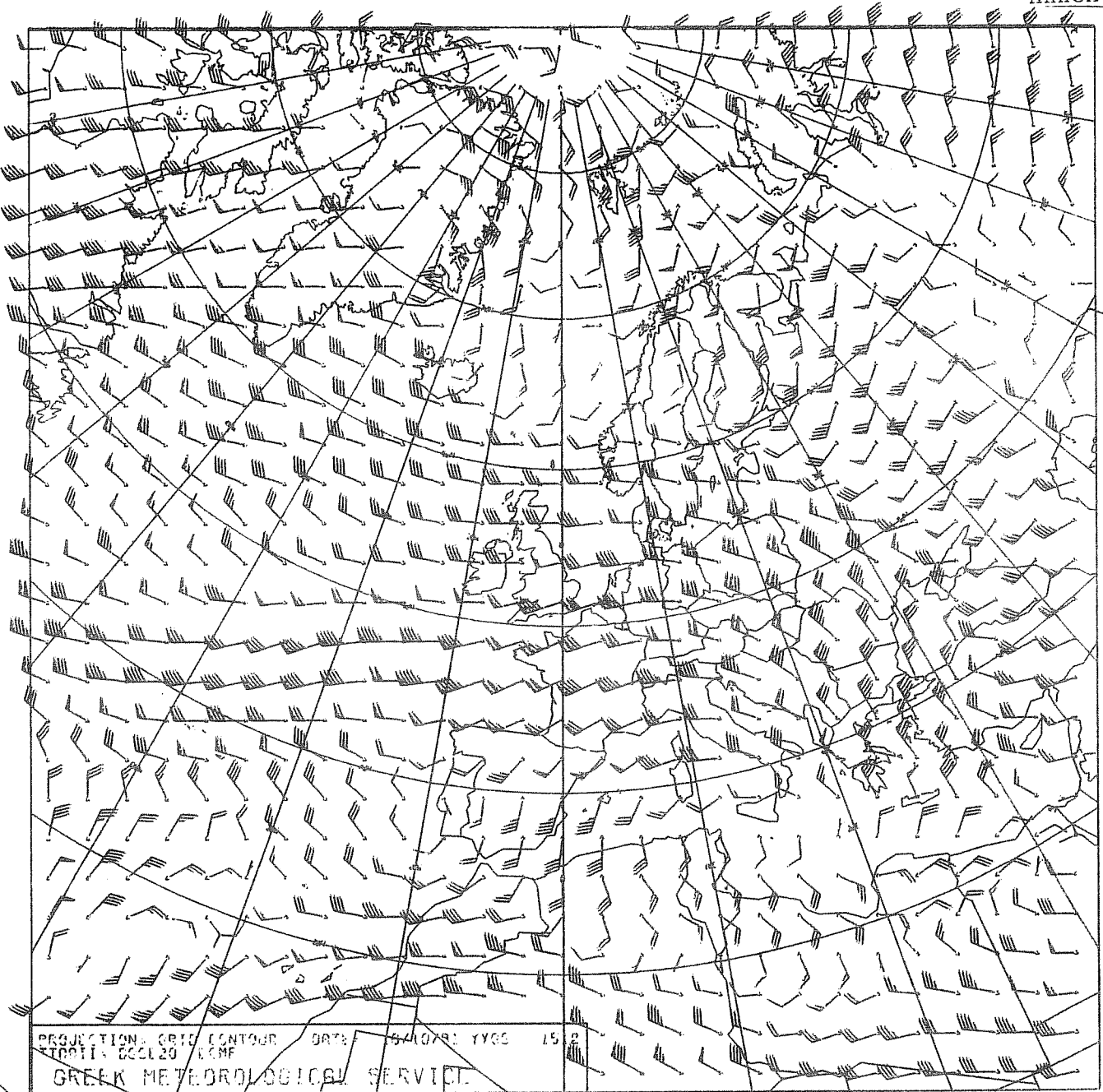PROJECTION: UPPER AIR
LEVEL: 500 MB   DATE: 16/ARCH. 1995. FCO
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Example 2

. Example 3

ECMWF product – Contours of surface pressure – 60 hours prognosis

PROJECTION: GRID CONTOUR   DATE: 12/10/91 YYGG: 1112
TTRRII: HOGYSG ECMF   -12
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Example 4

ECMWF product - Contours of height and temperature at 500 mb -·

120 hours prognosis

Example 5

ECMWF product – Wind field at 200 mb – Analysis at 15.10.81/1200 GMT