

FISHERY-ADVISORY INFORMATION AVAILABLE TO TROPICAL PACIFIC TUNA FLEET VIA RADIO FACSIMILE BROADCAST

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Fishery-advisory information is being transmitted to the tropical Pacific tuna fleet via radio facsimile (FAX) broadcast by the NMFS Fishery-Oceanography Center at La Jolla, California. Two FAX charts containing oceanographic and weather information tailored to fishermen's needs are being transmitted daily (except weekends) to vessels on the fishing grounds in the eastern tropical Pacific by NMFS-licensed radio station WWD at 2300 GMT on frequency 17294.9 kHz.

Sea-state information including swell direction and height, wind-wave height and, once each week, a 7-day sea-surface temperature analysis, is given on one chart (Fig. 1).

A second chart provides information on direction and speed of surface winds, location and direction of movement of tropical storms, location of areas of squalls and other inclement weather conditions, and location of the Intertropical Convergence Zone (Fig. 2).

Within the next month or so, a weekly analysis of thermocline depth will be included on the charts. Eventually, the location of ocean-surface temperature fronts indicated by infrared temperature measurements made by orbiting satellites and received by the Automatic Picture Transmission (APT) installation at the Fishery-Oceanography Center will be added to the charts. The geographical coverage of the charts is from the American west coast to 140° W between latitudes 30° N and 5° S.

The FAX charts are based on data received at the Fishery-Oceanography Center from

many sources. These include: merchant ship marine weather and sea-surface temperature observations, which appear on Service 0 circuit 8275, the APT installation at the Fishery-Oceanography Center, Navy Fleet Numerical Weather Central at Monterey, National Weather Service storm warning bulletins and other products, and cooperating fishing vessels.

The fishery-advisory service is being performed on an experimental basis as a means of obtaining valuable environmental data from fishing vessels--and to provide fishermen with information that may assist them in making tactical fishing decisions. The environmental data collected by fishermen are necessary for use in the development of fishery-forecasting techniques and methods for tropical tunas now underway at the Fishery-Oceanography Center. The environmental data are also passed on to the Navy Fleet Numerical Weather Center in Monterey, California, and the National Weather Service for use in their programs.

The Fishery-Oceanography Center is providing FAX recording equipment to cooperating fishermen with the agreement that fishermen make and transmit ashore at least one XBT-BATHY, with probes provided by the Navy Fleet Numerical Weather Central or synoptic marine weather observation per day while on the fishing grounds. FAX equipment has been installed aboard 13 modern purse seiners during the 1971 tuna fishing season, and more installations are planned.

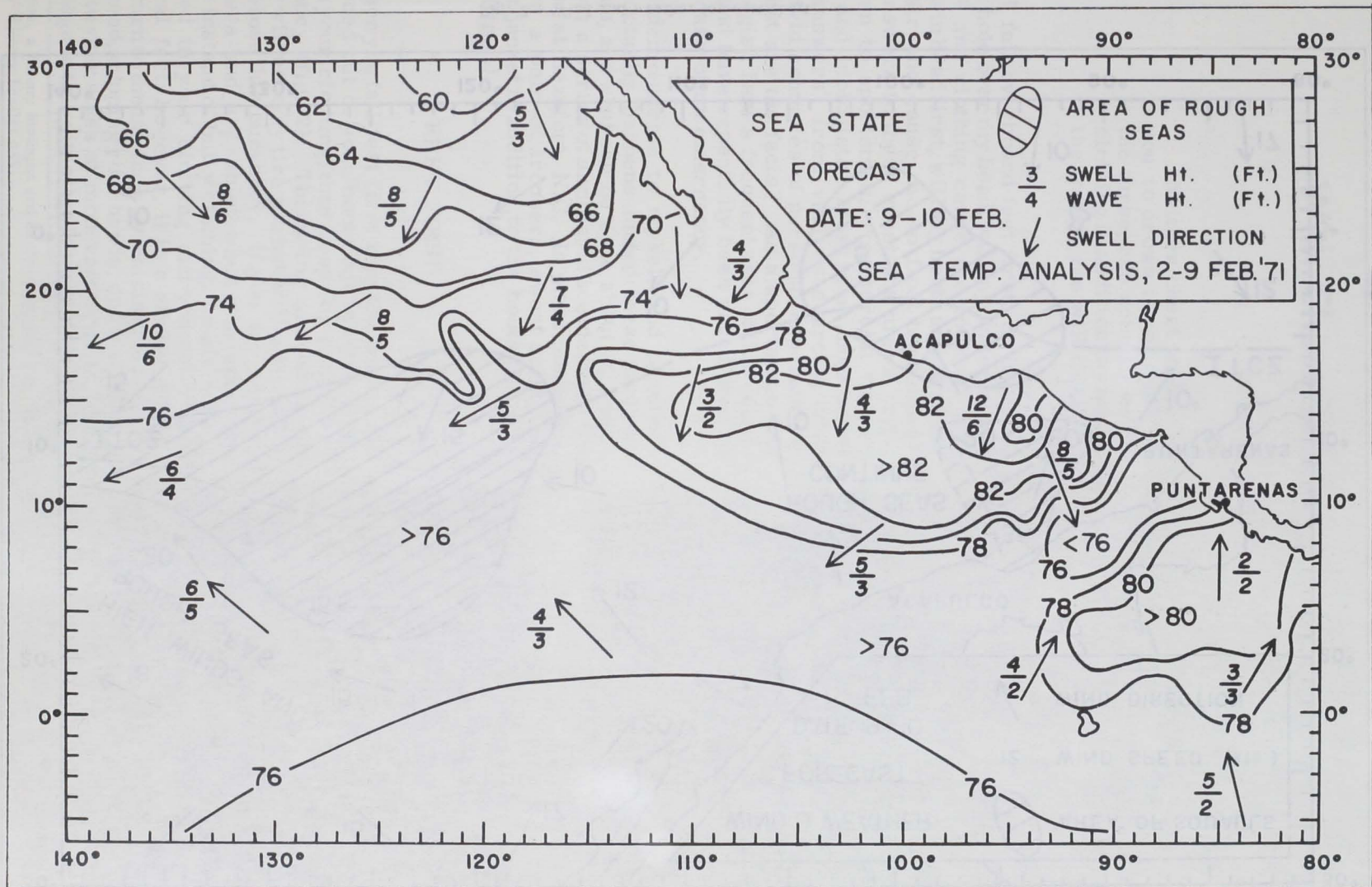


Fig. 1 - Sea state forecast and sea surface temperature chart.

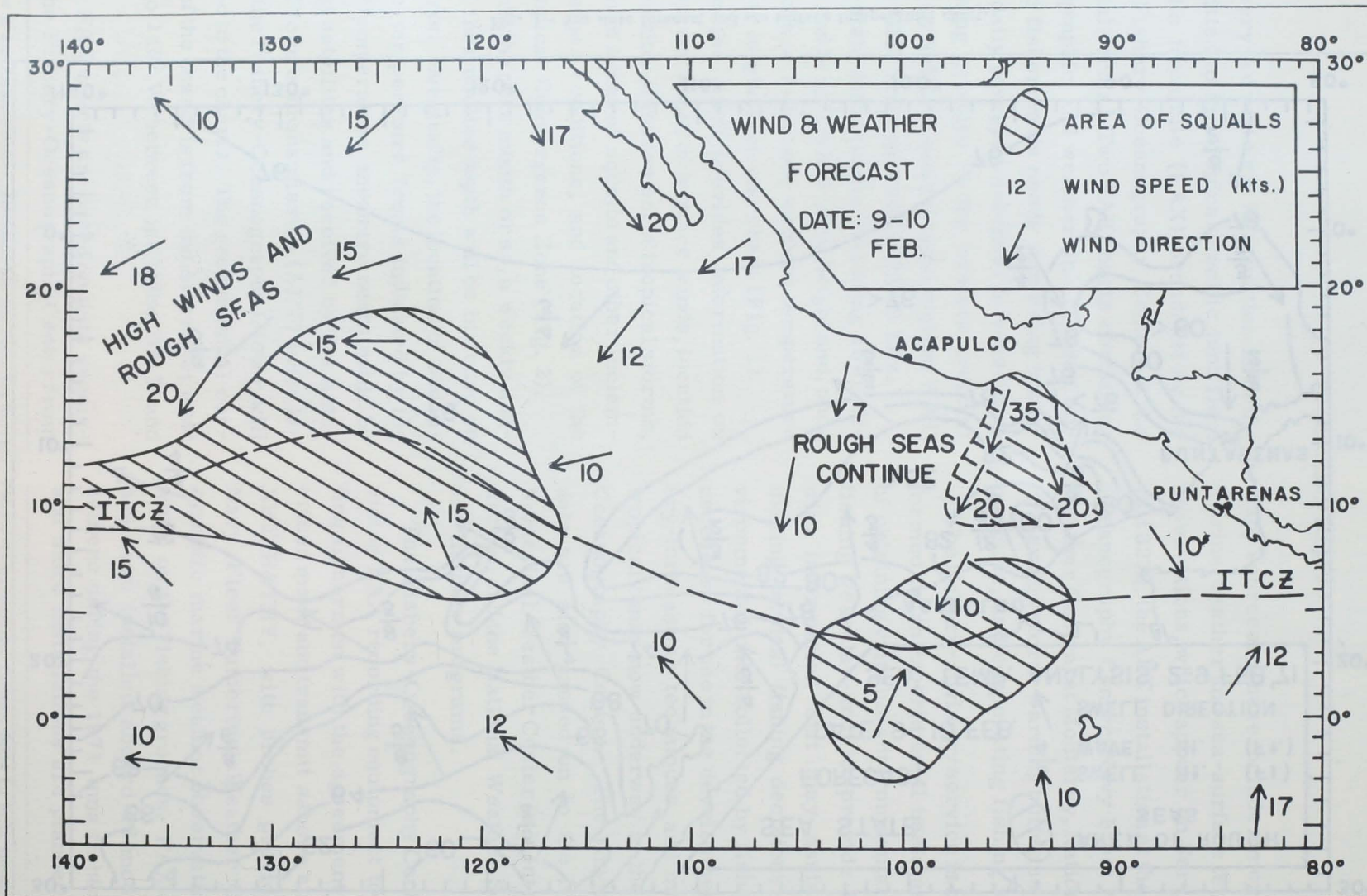


Fig. 2 - Wind and weather forecast chart.

FORECAST AVAILABLE TO TROPICAL PACIFIC TUNING AND SIMPLE BROADCAST