Ocean Station Papa (OSP or Sta. P)

The station is located at 50°N, 145°W, approximately 1500 km due west from the approaches to the Juan de Fuca Strait at 125°W in 4200 m of water, and is representative of the northeast subarctic Pacific Ocean (southern edge of the Alaska gyre).

JGOFS-relevant research at OSP evolved from the co-located Canadian weathership sampling program (December 1949 - June 1981), the Subarctic Pacific Ecosystem Research (SUPER) programme (1984–1988) and the Canadian JGOFS field programme (1992 - 1997). Since 1998, the scientists and technical staff in the Ocean Science and Productivity Division of the Department of Fisheries and Oceans, Canada (DFO) have continued to support two or three cruises to OSP per year to continue the previous decades of seasonal sampling. In view of the importance of long ocean time series, the observations at Station P and Line P were continued, although at much less frequent intervals than in the past, after the withdrawal of the weatherships in June 1981. These cruises were usually in the periods February, May–June, and August–September to coincide with winter, late spring and late summer periods, respectively. Line ‘P’, 12 stations from Victoria to OSP, occupied from 1959–1981, was also re-occupied during the JGOFS campaign. A bottom-moored sediment trap programme at OSP ran from 1983 to 1994. A deep-sea mooring was deployed from 1995 to 1997 which recorded T, S, light and solar-induced fluorescence at ~30 m. JGOFS relevant sampling is also periodically conducted along the transect from Vancouver to OSP at several locations along ‘line P.’

The main objectives were to document seasonal, interannual and decadal variations in hydrographic and key biogeochemical parameters and determine their relationship to carbon export, to investigate the role of atmospherically-deposited iron on ecosystem dynamics, including carbon dioxide drawdown and to determine the impact of El Niño events on biogeochemical cycling.

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Additional information on OSP is available at: www-sci.pac.dfo-mpo.gc.ca/osap/data/linep/linepselectdata_e.htm.