

VISIBLE GMS SATELLITE PICTURE — 6 MAY 1993

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A number of interesting features can be seen in this photo.

Just north of New Zealand is an eastward moving hook shaped band of convective cloud. It is associated with a cold pool and lies just ahead of an upper trough, as can be seen by the northwest-southeast orientation of the cumulonimbus cirrus anvils.

A jet max further ahead of the trough has moved southeast across the ocean east of the Bay of Plenty in the twelve hours before the photo was taken. The polar exit of the jet passed over the North Island causing shower activity and a few thunderstorms, the remains of which can be seen over the central North Island and to the east of Gisborne.

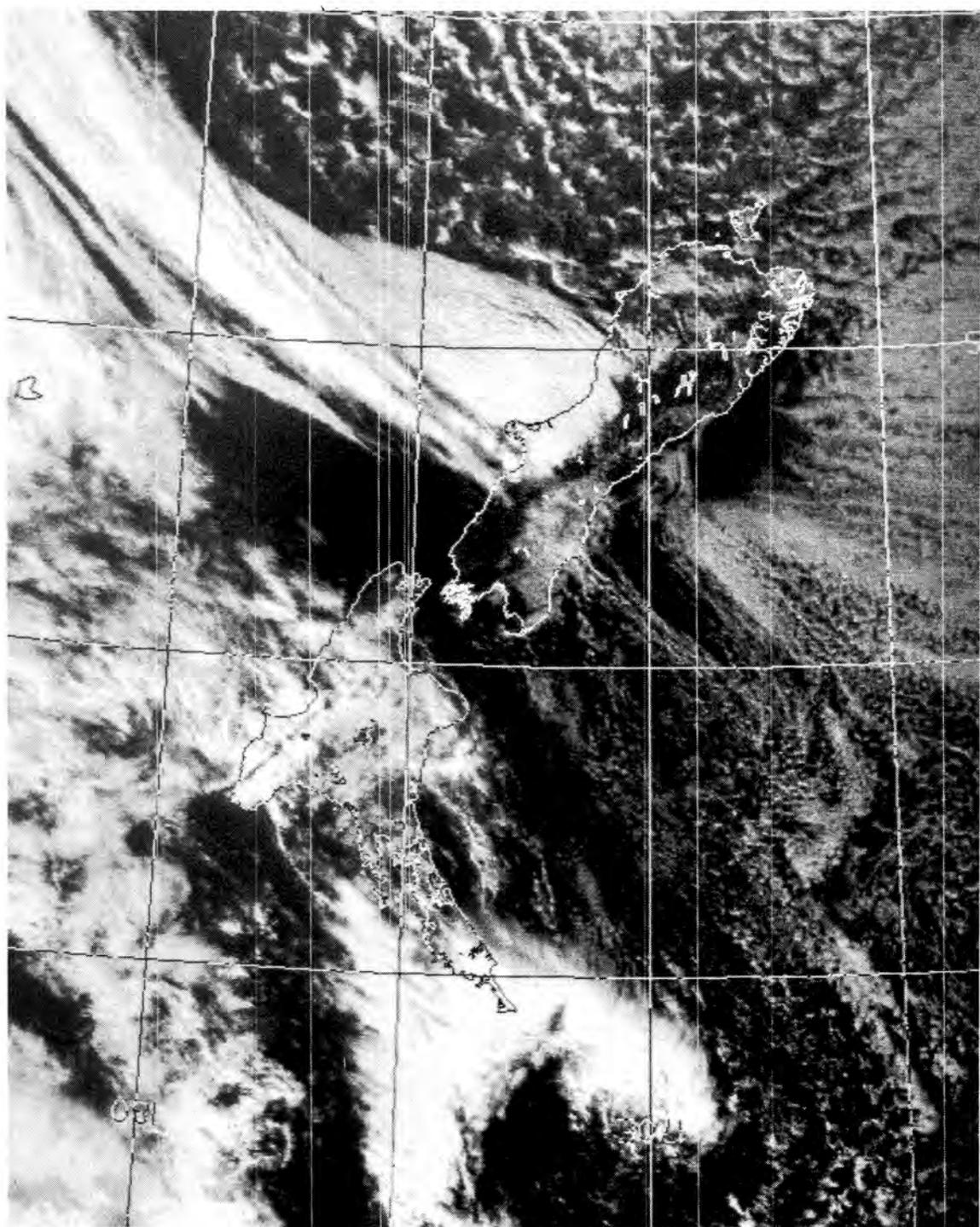
More rain fell from these showers than any other feature over New Zealand in the 24 hours up to the time of the picture.

A cold front over Canterbury has weakened as it moved northeast under a strong upper ridge. It is now mostly low stratiform cloud as can be seen by the way its western edge is terminated by the Canterbury foothills and the presence of the shadow of a narrow remnant of upper cloud that extends southeast from Banks Peninsula.

Lee waves in the westsouthwest flow over Southland and Otago extend into the stratiform cloud sheet. This shows that the southerly flow behind the front containing the low cloud is only in the lowest few thousand feet of the atmosphere with the westsouthwest flow lying above. Most inland areas had no rain from the front, and coastal areas had only a millimeter or two, mostly from drizzle. Cloud bases as low as 600ft were reported from Timaru.

Skies are clear over the Kaikoura coast and Wellington because of sheltering in the westerly flow ahead of the front. The Wairarapa is also clear but for some orographic cloud over the Aorangi ranges.

Further south, at the bottom of the picture, there is an area of open cell cumulus associated with strong cold advection over a relatively warm ocean surface.



GMS satellite picture