DISPERSION CURVES FOR THE DODECANESE - ATHENS PATH INFERRED FROM RAYLEIGH WAVES

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Ten records of Rayleigh waves generated by earthquakes in the aree SE of Carpathos Island (Greece) end recorded by the vertical component of the long period seismograph of station ATH (Athens) were used to obtain the dispersion curves for a propagating path crossing the Hellenic Arc at 90^0.

The signals were anelyzed in the frequency domain for periods within the range of 8 to 80 seconds. Analysis for each seismogram includes digitization, interpolation and baseline correction, removal of the i nstrument response, determination of the spectral Fourier amplitude as well as the calculation of the group velocity. Spectral amplitude and group velocities were estimated using a computer program written by Burton and Blamey (1972) based on the multiple filter technique of Dziewonsky, Bloch and Landisman (1969). The dispersion curve was determined for each seismogram and the mean curve for the propagating path was obtained with a statistical uncertainty for each period.

Group velocity varies between 2.2 and 5.0 km/sec and generally increases with period. The average curve was compared to the summarized curves given by Oliver (1962) and could characterize e surface sedimentary leyer, rether thick, overlaying a continental structure, which at its deepest part shows a possible contamination by oceanic material. This description is in agreement with the results obtained by other investigators.

SOME PROPERTIES OF FORESHOCK SEQUENCES IN THE AREA OF GREECE

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The probability that a shallow main shock will be preceded within 1 day, 10 days or 1 month by its largest foreshock or its second largest foreshock is approximately 60%, 30% and 15%, respectively. This conclusion reconfirms previous results and is based on a larger data set. The temporal distribution of the foreshock frequency of occurrence

reveals an increase in activity that starts about 2 months before the main shocks, culminating in a final rapid acceleration of activity during the last day.

INVERSION TECTONICS OF IONIAN BASIN IN EPIRUS (NW-GREECE)

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Ionian bassin opening and its internal differentiation is attested by lateral facies and thickness variation of the Middle Liassic to Malm formations. The begining of the synrift sequence is represented by the Siniais Limestones and their lateral equivalent of Louros limestones in which identification and description of Brachiopodes and Ammonites indicate a Carixian to Domerian age. The geometrical characteristics of the distentional basin are deduced from direction of stratigraphic pinching out of the Middle Liassic to Malm Formations and of synsedimentary tectonic features (slumps, synsedimentary faults) observed in their base in the hemi-grabens. The postrift period is marked by an Early Berriasian break-up unconformity representing the base of Vigla limestones, which their sedimentation was synchronous in the whole Ionian basin. The postrift sequence largely obscures the synrift structures and in same cases overlies directly the prerift sequence.

During Alpine orogeny, collision related compressive stresses on the margin induced the reactivation of pre-existing fractures and were responsible for the inversion tectonics that affected the Mesozoic basin. The geometric characteristics of the inverted basin depend on the lithology (evaporites), the geometry of the extensional structures, and the orientation of extensional faults.

The Ionian zone constitutes a good example of inversion tectonics of a basin.

NEAR BOTTOM CURRENTS AND THE GENERATION OF BEDFORMS IN THE EASTERN AND CENTRAL AEGEAN SEA. FIRST APPROACH.

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In this work bottom current meters data will be presented collected over a period of about 15 days (23/5/1988 - 9/6/1988) in the area of Eastern and Central Aegean sea.