

8. A N E X O S

8.1. RESUMEN DEL ANÁLISIS ESTADÍSTICO Y LOS FRAGMENTOS DE LAS IMÁGENES TIPO SAR DE LOS PENACHOS DE AGUAS RESIDUALES PROCEDENTES DEL RÍO LLOBREGAT, BARCELONA

Período total de observaciones: 06.12.96 – 18.10.98 (22,5 meses)

Número de *frames*: 2 (Nº 9 y Nº19)

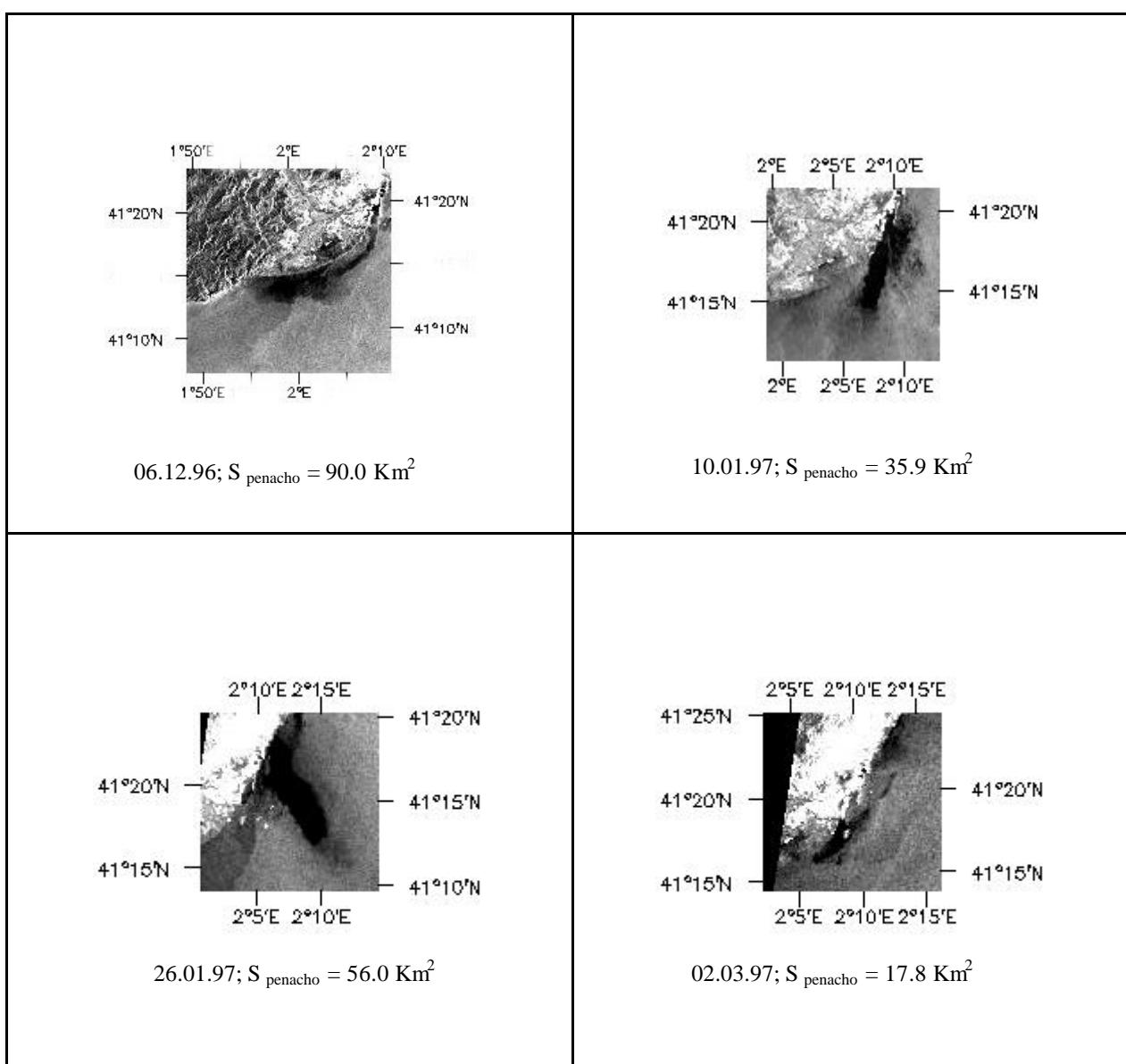
Número total de las imágenes SAR de área de estudio: 33; válidas 31.

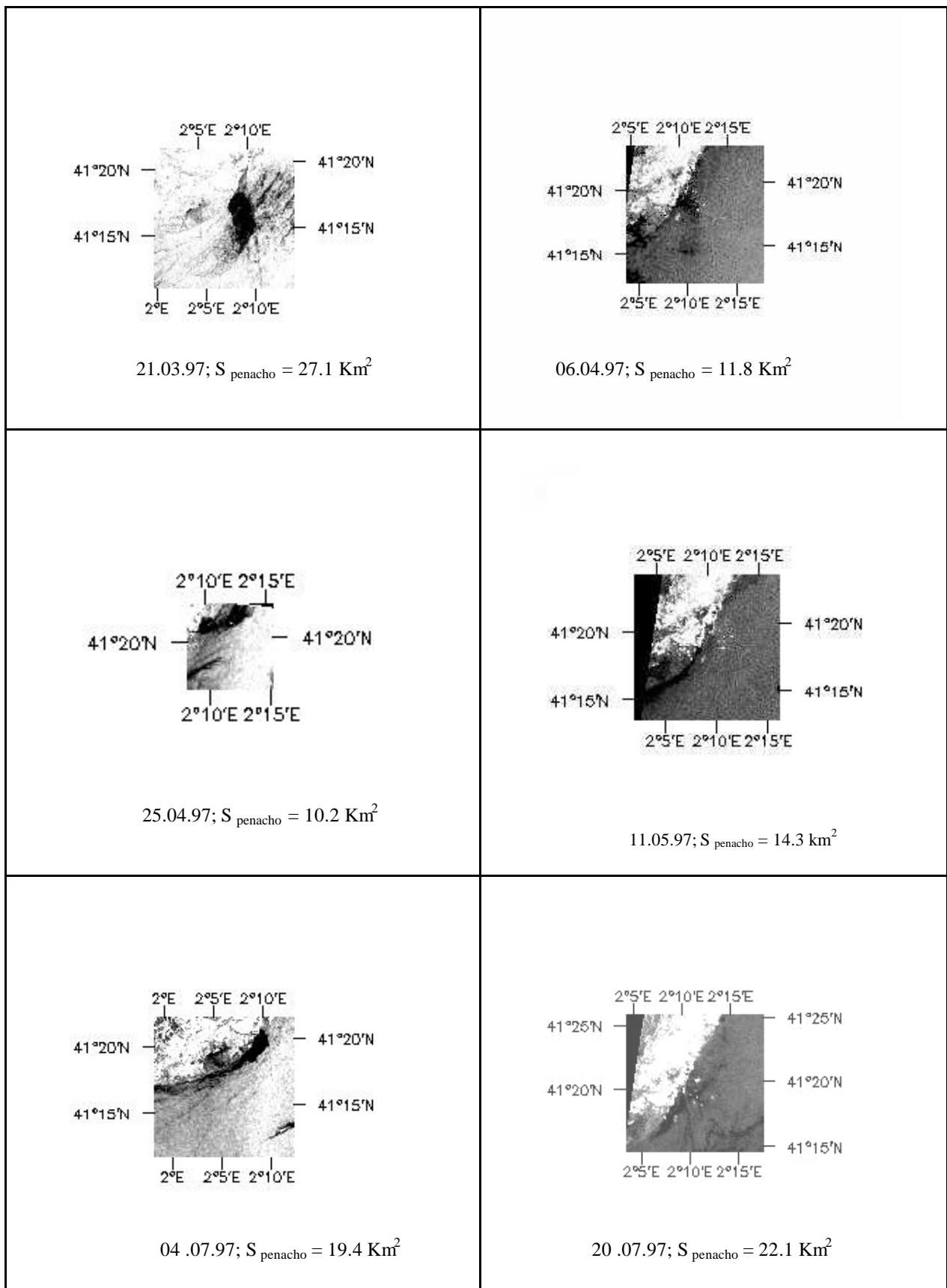
Número de casos de la detección de penachos en las proximidades de Barcelona: 24. (77%)

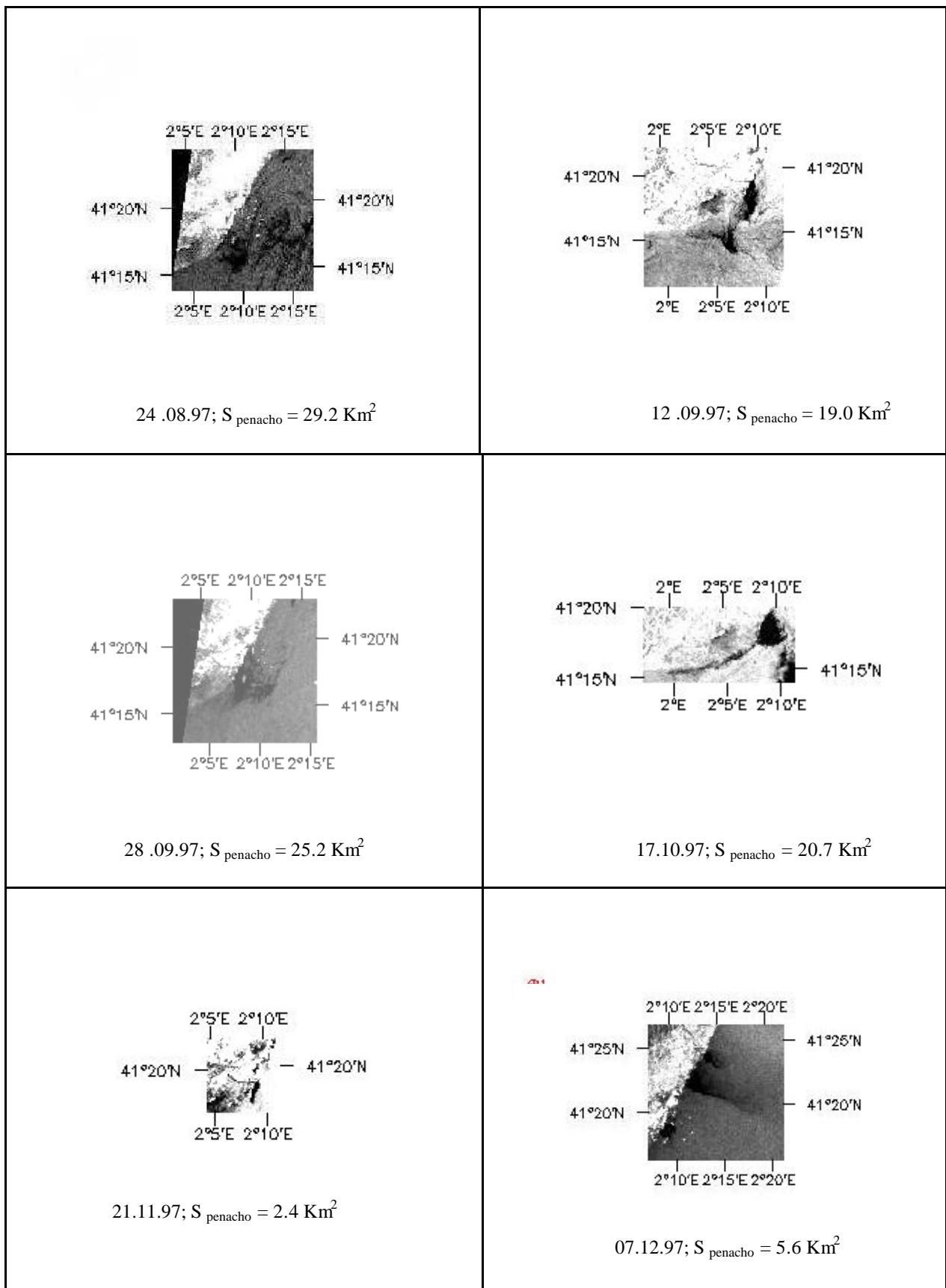
Área total de los penachos detectados: 589.7 Km².

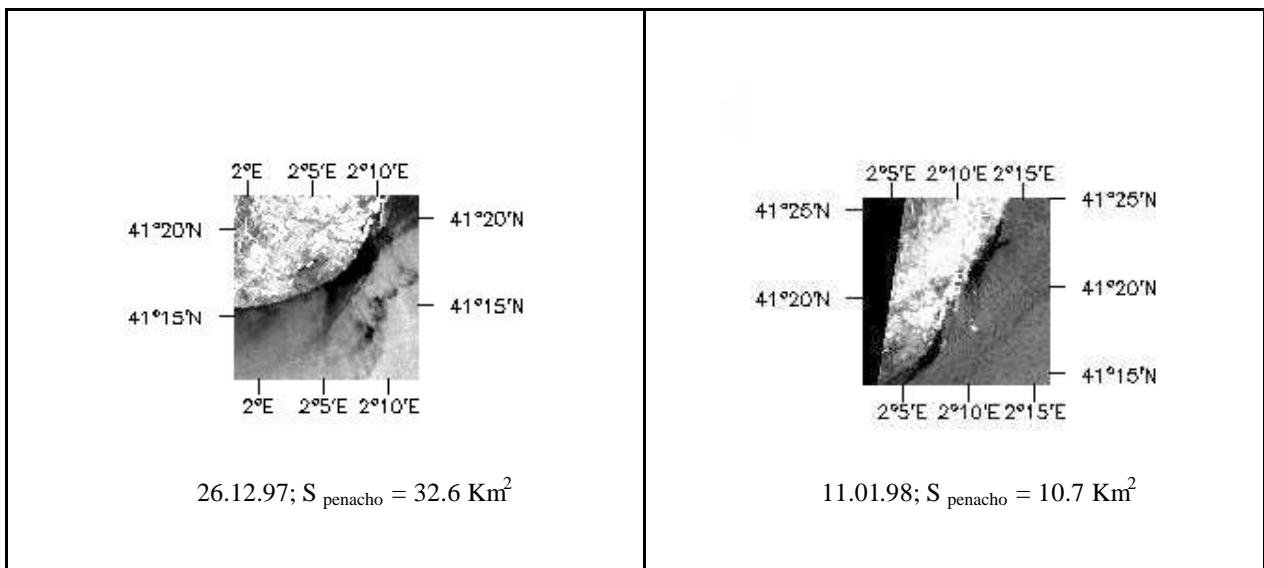
Área media de un penacho: 24.5 Km².

Área máxima del mayor penacho detectado: 90 Km² (06.12.96).









8.2. PUBLICACIONES Y DOCUMENTOS CIENTÍFICO-TÉCNICOS RELACIONADOS

Redondo J.M, Platonov, A.K. (1999). Slick detection from SAR images in the Barcelona Area (Catalan-Balearic Sea). Informe Parcial del proyecto Clean Seas (ENV4-CT96-0334) para UE. Bruselas. pp. 1-20.

Redondo, J.M.A; Carrillo. A. and Platonov A. K. (1999). Vortical structures, front structure and dispersion processes in the Black Sea: remote sensing, laboratory and numerical models. Informe anual del European INCO-COPERNICUS project. Mixing and distribution of the physical and biological components of the Black Sea ecosystem (IC15 – CT96 – 0111) for EU. Bruselas. pp.1-50.

Martinez Benjamin J.J., L.M. Redondo, J.Jorge & A.Platonov. (1999). Application of SAR images in the western Mediterranean Sea. Proceedings of the 19th EARSel Symposium on Remote Sensing in the 21st Century. Remote Sensing in 21st Century: Economic and Environmental Applications. A.A. Balkema ,Ed. J.L. Casanova, Rotterdam / Brookfiel. pp. 461-465..

Redondo, J.M.A, Carrillo. A., Benitez, C., Castilla, R. and Platonov A. (2000). Front structure and dispersion processes in the Black Sea: remote sensing, laboratory and numerical models. Final Black Sea Report (Project IC15 – CT96 – 0111) for EU. S.O.S, Goldaming. pp. 1-54.

Jolly, G. W., A. Mangin, F. Cauneau, M. Calatuyud, V. Barale, H. M. Snaith, O. Rud, M. Ishii, M. Gade, J. M. Redondo, A. Platonov. (2000). The Clean Seas Project Final Report <<http://www.satobsys.co.uk/CSeas/report.html>>. Informe final del Proyecto Clean Seas (ENV4-CT96-0334) para UE. DG XII/D of the European Commission, Bruselas. pp. 1-75.

Platonov A.K. & Oliveira A. M. (2000). Harmonic analysis of the currents and water level modification in shallow coastal waters: example of Mundaú – Manguaba Lagoon Complex, Brazil. Turbulent Diffusion in the Environment. XDFG, Eds. Redondo, J.M. & Babiano, A., Madrid. pp. 133-141.

Díez, M., Redondo, J.M., Mestres, M., Platonov,A., Sánchez-Arcilla, A. (2000). Control de contaminantes mediante imágenes. Proceedings de V Jornadas Españolas de Ingeniería de Puertos y Costas, vol. 2 Universidad Politecnica de Valencia. pp.1027-1038.

Carrillo, A.; Sanchez, M.A.; Platonov, A.; Redondo, J.M. (2001). Coastal and Interfacial Mixing. Laboratory Experiments and Satellite Observations. Physics and Chemistry of the Earth. V. B, 26/4. pp.305-311.

Redondo, José M., Alexei K. Platonov. (2001). Aplicación de las imágenes SAR en el estudio de la dinámica de las aguas y de la polución del mar Mediterráneo cerca de Barcelona. Ingeniería del Agua, 8/1. Villareal (Castellón), España. pp. 15-23.

Platonov, A. K. , Redondo, J. M. (Enviado el 31.10.2001). Peligro de vertidos en las rutas marítimas del Mediterráneo Noroccidental: resultados preliminares del estudio mediante las imágenes espaciales del radar de apertura sintética SAR. Proceedings de VI Jornadas Españolas de Ingeniería de Puertos y Costas.

Platonov, A.K., Redondo, J.M. Barceló, J.G. (2001). Water wash spill pollution danger in NW Mediterranean: statistical analysis of two-year satellite observation. Maritime Transport. First International Congress on Maritime Transport “Maritime Transport 2001”. Eds. Puig, J.O., Dauer, R.R-M., Blanco, R.G., Mallofré, J.M. Department of Nautical Science and Engineering of the Technical University of Catalonia. Barcelona, España. pp. 325-334.

Platonov, A.K., Grau, J., Redondo, J.M. (2002). The Structure and Diffusion of Oil Spills and Slicks in the Ocean. Proceedings of the Fluxes and Structures in Fluids International Conference. RAS, Moscú, Rusia. pp. 176-183.

Contribuciones a Congresos.

Workshop on Advances in Turbulence IV Fluid Dynamics in Geophysical Flows. UPC, Barcelona. 15-17/10/1998. Poster: Platonov A.K. & Oliveira A.M. Harmonic analysis of the currents and water level modification in shallow coastal waters: example of Mundaú – Manguaba Lagoon Complex, Brazil”.

Clean Seas 5⁰ Regional Project Workshop, European project ENV4-CT96-0334, Barcelona, 18-19.03.1999. Ponencia y poster, publicación: Informe parcial para UE. Redondo, J.M., Platonov A. K. Slik detection from SAR images in the Barcelona Area (Catalan-Balearic Sea).

XXIV General Assembly of European Geophysical Society, Haya, 19-23.04.1999

Poster y publicación: Book of Abstracts, V.1, N 2, OA7. p. 413.

Martines-Benjamin, J.J.; Redondo, J.M.; Van Der Graaf, G.; Platonov, A. Monitoring of the NW Mediterranean Sea by SAR observation.

XXIV General Assembly of European Geophysical Society, Haya, 19-23.04.1999

Ponencia y Publicación: Book of Abstracts, V.1, N 4, NP3. p. 814. ISSN: 1029-7006.

Sanchez, M.A.; Carrillo, A.; Platonov, A.; Redondo, J.M. Turbulent velocities near density interfaces

XXIV General Assembly of European Geophysical Society, Haya, 19-23.04.1999

Poster y publicación: Book of Abstracts, V.1, N 4, NP3. p. 817. ISSN: 1029-7006.

Sanchez, M.A.; Carrillo, A.; Platonov, A.; Redondo, J.M. Observation of velocity structure near mixing density interfaces.

19th EARSel Symposium, Valladolid, España, 31.05-02.06.1999.

Poster: Martinez Bendjamine, J.J.; Redondo, J.M.; Jorge, J.; Platonov, A.; and Chic, O. Application of SAR images in the Western Mediterranean Sea.

Workshop on Advances in Turbulence V. Universidad de Girona, ciudad de Girona, Catalunya, España. 08.06.1999. Ponencia, Book of Abstracts, p.10. Alexei Platonov and Redondo, J.M. Observation of coastal induced eddies in the NW Mediterranean Sea.

CANIGO International Conference. Las Palmas de Gran Canarias, España. 12-16.09.1999 Poster y Book of Abstracts, p.50. Martínez Benjamin, J.J., Platonov, A., Catalán, M., Redondo, J.M. RADARSAT observation of the Gibraltar environmental conditions and its hydraulic exchange.

V Jornadas Españolas de Ingeniería de Puertos y Costas. Coruña, España: 22-24.09.1999 Ponencia: Díez, M., Redondo, J.M., Mestres, M., Platonov, A., Sierra, J.P., Sánchez-Arcilla, A. Control de contaminantes mediante imágenes.

25th General Assembly of European Geophysical Society. Nice, Francia. 04.2000
Ponencia y Publicación: Geophysical Research Abstracts, Volume 2, N P9.01. Nonlinear Processes. Redondo, J.M., Bezerra M.O., Platonov, A. Mixing in the ocean surfacfe. p. 495.

Third ERCOFTAC Conference on Mixing in Geophysical and Astrophysical Flows. Sheffield, UK. 12-14.04.2000. A. Platonov, M.O. Bezerra, M. Diez and J.M. Redondo. Remote sensing studies of coastal diffusion in the ocean. Ponencia.

Eighth European Turbulence Conference. UPC, Barcelona, España. 27-30.06.2000
Poster: Martinez Benjamin J.J., A. Platonov, AM. Catalán, J.M. Redondo. Observation of the Gibraltar Oceanographic and Environmental Features. Advances in Turbulence VIII. Proceedings of the Eighth European Turbulence Conference.

8th International Workshop on the Physics of Compressible Turbulent Mixing IWPCTM. California Institute of Technology (COLTECH) in Pasadena, California, USA. 9-14 December, 2001.
Poster: Redondo, J.M., Rozanov, V., Gushkov, S., Grau, J., Platonov, A., Medina, P., Carillo, A., Garzon, G., Guldiota, G., Velasco, D. y Sanchers, M.A. Multifractal analysis of the structure of the mixing interfaces in R-M and R-T driven flows.

26th General Assembly of European Geophysical Society. Nice, Francia. 03.2001

Ponencia: Platonov, A., J. Grau, M.O. Bezerra and J.M. Redondo. Multifractal measurements of oceanic tracer dispersion, y publicación: CD Geophysical Research Abstracts, Volume 3, NP15.04. Nonlinear Processes in Geophysics. Scalling, multifreacalts and nonlinearity in geophysics: scalling, multifractals and nonlinear variability in oceans, atmosphere and the climate (co-sponsored by OA), p. 548.

VI Jornadas Españolas de Ingeniería de Costas y Puertos. Palma de Mallorca, España. 16-18.05.2001.

Poster: Platonov, A., Redondo, J.M. Peligro de vertidos en las rutas marítimas del mediterráneo Noroccidental: resultados preliminares del estudio mediante las imágenes espaciales de apertura sintética SAR.

Fluxes and Structures in Fluids International Conference. Institute of Problems on Mechanics, RAS, Moscú, Rusia. 20-22.06.2001.

Ponencia, Sección de Posters. Platonov, A.K., Grau, J., Redondo, J.M. The Structure and Diffusion of Oil Spills and Slicks in the Ocean.

Maritime Transport 2001. First International Congress on Maritime Transport. Department of Nautical Science and Engineering of the Technical University of Catalonia. Trade Work Centre in Barcelona, España. 21-23.11.2001.

Ponencia: Platonov, A.K., Redondo, J.M. Barceló, J.G. Water wash spill pollution danger in NW Mediterranean: statistical analysis of two-year satellite observation.

8.3 MANUALES Y DIRECCIONES ELECTRÓNICAS RECOMENDADOS PARA CONSULTA

ESA . ERS-1 USER HANDBOOK. 1992.

ESA . SAR OCEAN FEATURE CATALOGUE. 1994.

ADIBASE (SAR Imágenes, Rusia) <http://asp.iki.rssi.ru/root/adidas/default.html>

Atles Climàtic Digital de Catalunya http://magno.uab.es/atles-climatic/main_es.htm

Cartoteca de Catalunya (Instituto Cartográfico de Cataluña) <http://www.icc.es/biblio/catalan/>

CIESM - the Mediterranean Marine Research Network <http://www.ciesm.org/>

CZCS DATA <http://www.me.sai.jrc.it/OCEAN/xeur.html>

8. ANEXOS

- Diccionario técnico <http://www.termcat.net/dicci/tsi2/index.html>
- RADARSAT-1 http://www.space.gc.ca/csa_sectors/earth_environment/radarsat/default.asp
- ERS and Marine applications Oil Spills <http://esapub.esrin.esa.it/br/br128/br128m1.htm>
- ERS and Marine applications Oil Spills <http://esapub.esrin.esa.it/br/br128/br128m1.htm>
- Glossary of Oceanography and Related Disciplines <http://stommel.tamu.edu/~baum/paleo/ocean/>
- IFREMER (Francia) <http://www.ifremer.fr/anglais/>
- INSTITUTO ESPAÑOL DE OCEANOGRAFÍA <http://www.ieo.es/>
- Instituto Hidrográfico de Portugal <http://www.hidrografico.pt/hidrografico/>
- Latest oil spill news on oil-spill-web <http://www.oil-spill-web.com/news/latest.htm#3>
- CEDRE pollutions accidentelles (Francia) <http://wwwcedre.ifremer.fr/fr/accueil/index.php>
- Lista Teledetección <http://www.rediris.es/list/info/teledeteccion.html>
- Ocean Colour Data http://daac.gsfc.nasa.gov/CAMPAIGN_DOCS/OCDST/OB_main.html
- Oceanographic dataset: LEVITUS-94 <http://ingrid.ldgo.columbia.edu/SOURCES/.LEVITUS94/>
- Oil Spill Control Associations - <http://www.cleanupoil.com/Associations.htm#SYCOPOL>
- Oil Spill Monitoring Service <http://www.tss.no:80/services/index.html>
- Oil Spills Guide <http://environment.about.com/newsissues/environment/cs/oilspills/index.htm>
- OILWATCH Project Background EOS <http://oilwatch.eos.co.uk/project.htm>
- Puertos de Estado <http://www.transmodal.unican.es/puertos.asp>
- Russian Space Research Institute (IKI) <http://www.iki.rssi.ru/>
- SAR applications (ESA) http://earth.esa.int/DATA_UTIL/SARDOCS/
- SAR Archives (NASA) <http://southport.jpl.Nasa.gov/cgi-bin/als/southport/guess.cgi?quiz>
- Satellite Data from Infoterra http://www.infoterra-global.com/satellite_data.html#ImageButton1_Anchor
- SATELLITES (ESA) <http://earth.esa.int/eeo3/>
- Spill Science & Technology Bulletin
<http://www.elsevier.nl/inca/publications/store/3/0/3/0/6/30306.pub.htm#top>
- SPUTNIK (Rusia) <http://sputnik.infospace.ru/>
- Synthetic Aperture Radar Atlas SARA (94-95) <http://sara.unile.it/sara/>
- Tanks Oil Spills http://dailynews.yahoo.com/fc/World/Oil_Spills
- TIDAL DATA (Francia) <http://www.acri.fr/English/Products/TIDAL/tidal.html>
- Tide Tables, Tides and Tidal Predictions (Canadá) <http://www.stormy.ca/tides/index.html>
- WWF International <http://www.panda.org/>

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