DAFTAR PUSTAKA

Adler, R.F., Negri, A.J., Keen, P.R., Hakkarinen, I.M. 1993. *Estimation of Monthly Rainfall Over Japan and Surrounding Water from a Combination of Low Orbit Microwave and Geosynchronous IR Data*. *Journal Applicated of Meteorology*. 32:335-356.

Adler, R.F., Huffman, G.H., Keehn, P.R. 1994. *Global Tropical Rain Estimation from Microwave Adjusted Geosynchronous IR Data*. *Remote Sensing Rev*. 11:125-152.

Adamowski, J., Chan, F.H., Prasher, S.O., Sharda, V.N. 2012. Comparison of Multivariate Adaptive Regression Splines with Coupled Wavelet Transform Artificial Neural Networks for runoff forecasting in Himalayan Micro-Watersheds with Limited Data. *Journal of Hidroinformatics*. P-731. Vol-14.3.

Aldrian, E. 2003. *Identification Of Three Dominant Rainfall Regions Within Indonesia And Their Relationship To Sea Surface Temperature*. *International Journal Of Climatology*. 23: 1435–1452

Aldrian, E., Karmini, M., Budiman. 2011. *Adaptasi dan Mitigasi Perubahan Iklim di Indonesia. Pusat Perubahan Iklim dan Kualitas Udara*. Badan Meteorologi Klimatologi dan Geofisika (BMKG) Indonesia.

Anagnostou, E.N., Krajewski, W.F., Seo, D.J., Jun, D., Johnson, E.R. 1998. *Mean field rainfall bias studies for WSR-88D*. *Journal of Hydrology Enginering*, 3 , 149-159.

Anneka, D., Ismail. 2013. *The Learning of K-Nearest Neighbours Model and Multivariate Adaptive Regression Splines Model in Rainfall – Runoff Processes at Pahang River, Malaysia*. *Proceeding of International Conference on Advance in Structural, Civil, and Environmental Engineering – SCEE*. Jakarta.

Arkin, P.A., Meisner, B., 1987. *The relationship between Large-Scale Convective rainfall and cold cloud over the western Hemisphere during 1982-1984*. *Mon. Wea. Rev*., 115, 51-74.

Asklany S., Elhelow K., Youssef I.K., Wahab M. 2010. *Rainfall events prediction using rule-based fuzzy inference system*. Science Direct Journal. Atmospheric Research 101.228-236.

Badan Meteorologi dan Geofisika (BMG). 2008. *Buletin Badan Meteorologi dan Geofisika. Puslitbang BMG*. Jakarta.

Badan Meteorologi Klimatologi dan Geofisika (BMKG). 2010. Peraturan Kepala Badan Meteorologi, Klimatologi, dan Geofisika Nomor : Kep.009 Tahun 2010 tentang Prosedur Standar Operasional Pelaksanaan Peringatan Dini, Pelaporan, dan Diseminasi Informasi Cuaca Ekstrim. BMKG. Jakarta Indonesia.

Badan Nasional Penanggulangan Bencana Republik Indonesia (BNPB RI). 2010. *Peta Kejadian Bencana Banjir di Indonesia Tahun 1979-2010*.

Badan Pusat Statistik. 2016. Provinsi Jawa Timur dalam Angka 2016. Publikasi Badan Pusat Statistik Provinsi Jawa Timur.

Barret, E.C. 1970. *The estimation of monthly rainfall from satellite data*. *Monitoring Weather*, 98, 322-327.

Barret, E.C., Martin, D.W., 1981. *The use of satellite data in rainfall monitoring*. Academic Press. London. UK.

Battan, L.J. 1973. *Radar Observations of the Atmosphere*. The University of Chicago Press. P 324.

Bemmelen, RW. 1949. *The Geology of Indonesia (First Edition), Vol IA*. Government Printing Office, The Netherrlands.

Bennartz, R., Thoss, A., Dybbroe, A., Michelson, D.B. 2002. *Precipitation Analysis Using the Advanced Microwave Sounding Unit in Support of Nowcasting Applications*. *Jounal of Applied Meteorology*. 9, 177-189.

Blanchard, D.C. 1953. *Raindrop Size Distribution in Hawaian Rain*. Journal of Meteorology. 10. Pp 457-473.

Budiati, 1996. *Estimasi Curah Hujan Berdasarkan Indeks Pantulan Radar dan Profil Kelembaban Relatif Hasil Observasi Radiosonde*. Tesis. Program Pascasarjana Institut Pertanian Bogor. Jawa Barat.

Budiati. 2008. *Interaksi Fenomena El Nino dan Dipole Mode Secara Simultan serta Monsun Panas India terhadap Variabilitas Curah Hujan di Sumatera Bagian Utara*. Disertasi. Institut Teknologi Bandung. Indonesia.

Bureu of Meteorology Australia. 2001. *Climate Variability and El Nino*. http://www.bom.gov.au. Diunduh 12 Juni 2010

Charania N.A., Dudul S.V. 2013. *Design of Natural Network Models for Daily Rainfall Prediction*. International Journal of Computer Science Aplication (0975-8887) Vol 61 No. 14.

Chumchean, S., Sharma, A., Seed, A. 2006. *An Integrated Approach to Error Correction for Realtime Radar Rainfall Estimation*. *Bulletin of American Meteorological Society*. Vol 23, pp 67-79.

Ciach, G.J. Krajewski, W.F., Anagnostau, E.N., Baeck, M.L., Smith, J.A., Mccollum, J.R., Kruger, A. 1996. *Radar Rainfall Estimation for Ground Validation Studies of The Tropical Rainfall Measuring Mission*. *Jurnal of Applied Meteorology*. *American Meteorological Society*. Pp 735-747.

Cluckie, I.D., Tilford, K.A., Shepard, G.W. 1991. *Signal Quantization and Its Influence on Rainfall Runoff Model*. *Hydrological Application of Weather Radar*. Collier, C.G., Ed., Ellis Horwood, 440-451.

Creutin, J.D., Obled, C. 1982. *Objective Analysis and Mapping Techniques for Rainfall Fields : an Objective Comparasion. Water Resources*. 18. 413-431.

Dittberner , G.J., Vonder H.T.H. 1973. *Large scale prepitation estimate using satellite data : Application to the Indian Monsoon.* Arch. Met. Geogp. Biokl. Ser. B., 21, 317-334.

Dubey, D. A. 2015. Artificial Neural Network Models for Rainfall Prediction in Pondicherry. International Journal of Computer Applications (0975 – 8887) Vol 120 – No.3.

Fields, G., Seed, A., Yu, B., Malone, T. 2004. *Calibration of Weather Radar in South East Queensland*. Sixth International Symposium on Hydrological Application of Weather Radar, Melbourne. Australia.

Foote, G.B. 1966. *A Z-R Relation for mountain thundrestorms*. *Journal of Applied Meteorology*. 5. 229-231.

Friedman, J.H. 1991. *Multivariate Adaptive Regression Splines (With Discussion). The Annals of Statisctics.* Vol 19. Hal 1-14.

Fulton, R.A., Breidenbach, J.P., Seo, D.J., Miller, D.A. 1998. *The WSR-88D Rainfall Algorithm*. *Weather Forecasting*, Vol 13, pp 377-395.

Gabella,M., Perona, G. 1998. *Simulation of the Orographic Influence on Weather Radar Using Geometric-Optics Approach. Journal of Atmospheric Oceanic Technology*. 15, 1485-1494.

Gutierrez, A.G., Schnabel, S., Contador, F.J. 2008. *Use of Two Non Parametric Methods (CART and MARS) to Model the Potential Distribution of Gullies in Spanish Rangelands*. Internatioanl Environmental Modelling and Software Society (iEMSs).

Han, D. 1991. *Weather Radar Information Processing and Realtime Flood Forecasting*. *PhD Thesis*. Water Resources Research Group, Departement of Civil Enginering. University of Salford, UK.

Henken, C.C. 2009. *Detection of Cb and TCu Clouds using MSG-SEVIRI cloud physical properties and weather radar observation*. *Thesis.* Utrecht University.

Ingsriwang L., Ingsriwang S., Luenam P., Trisaranuwatana P., Klinpratoom S., Aungsuratana P., Khantiyanan W. 2010. *Applications of Statistical Methods for Rainfall Prediction over the Eastern Thailand*. Proceeding of the International Multiconference Of Engineers And Computers Scientist (IMEC). Vol. 3. Hongkong.

Islam, M.R., 2005. *Improved quantitative estimation of rainfall by radar*. *Thesis.* The Faculty of Graduate Studies of the University of Manitoba. Hal. 10

Jackson, L.J. 1977. *Climate, Water and Agriculture in The Tropics*. Longman inc. New York. US.

Jobard, I., Desbois, M. 1994. *Satellite Estimation of The Tropical Precipitation Using The Meteosat and SSM/I Data*. *Atmospheric Research*. 34:285-298.

Jones, D.A., Gurney, R.J., O`Conell, P.E. 1979. *Network design using optimal estimation procedure. Water Resources*. 15. 1801-1812.

Joshi, U.R., Rajevaan, M. 2006. *Trend in Precipitation Extremes Over India*. Research Report No. 3. National Climate Centre– Indian Meteorological Departement

Joss, J., Waldvogel, A. 1970. *A Method to Improve the Accuracy of Radar Measured a Mount of Precipitation*. 14th Radar Meteorology Conference, Tucson, American Meteorology Society. 237-238.

Kementrian Dalam Negeri Republik Indonesia. 2016. *Pemetaan Potensi Ekonomi Daerah Koridor Wilayah Jawa.* http://appejawa.navperencanaan.com/peta/viewmap?prov_code=jatim#modalopen. diunduh tanggal 20 Juni 2016.

Lee, G.W., Zawadzki, I. 2004. *Errors in The Radar Calibration by Gage, Disdrometer, and Polarimetry : Theoretical Limit and Application to Operational Radar*. Sixth International Symposium on Hydrological Application of Weather Radar. Melbourne. Australia.

Levizzani, V., Bauer, P., Turk, F. Joseph. 2007. *"Measuring precipitation from space : EURAINSAT and the Future"*, published by Springer, the Netherlands, ISBN 978-1-4020-5834-9,pp 345-356.

Li, Y., Cai, W., Campbell, E.P. 2005. *Statistical Modelling of Extreme Rainfall in Southwest Western Australia*. *Journal of Climate.* American Meteorological Society. Vol 18, pp 852-863.

Linsley, R.K., Kohler, M., Paullus, J.L.H. 1975. *Hydrology for Engineers.* McGraw-Hill. New York. pp 482

Lovejoy, S., Austin, G.L. 1979. *The source of error in rain amount estimating schemes for GOES visible and IR satellite data. Mon. Wea. Rev*., 107, 1048-1054.

Luenam, P., Ingsriwang, P., Ingsriwan, S., Aungsuratana P., Khantiyanan, W. 2010. *A Neuro-Fuzzy Approach for Daily Rainfall Prediction over the Central Region of Thailand*. Preceeding of the International Multiconference of Engineer and Computer Science. Vol I. IMECS. Hongkong.

Maathuis, B.H.P., Gieske, A.S.M., Retrios, V., Leeuwen, B.V., Mannaerts, C.M., Hendrikse, J.H.M. 2006. *Meteosat-8 : From Temperature to rainfall. ISPRS Commision VII Mid-term symposium "Remote sensing from pixels to processes"*. Enschede, The Netherlands, 8-11 May 2006.

Mapiam, P.P., Sriwongstanon, N. 2008. *Climatological ZR Realationship For Radar Rainfall Estimation In The Upper Ping River Basin*. Research Article. Science Asia, 34. 215-222.

Marshall, J.S., Langille, R.C., Palmer, W.M. 1947. *Measurement of Rainfall by Radar*. *Journal of Meteorology*. 4 : 186-191.

Marshall, J.S., Palmer, W.M. 1948. *The Distribution of Raindrops with Size*. *Journal of Meteorology*. 5, 165-166

McGregor , G.R., Simon, N. 1998. *Tropical Climatology (Second Edition).* John Willey and Sons. Ltd. England.

Miler, S.W., Arkin, P.A., Joyce, R. 2000. *A Combined Microwave/Infrared Rain Rate Algorithm*. Journal Remote Sensing.

Min, S.K., Zhang, X., Zwiers, F., W. 2009. *Signal detectibility in extreme precipitation changes assessed from Twentieth Century Climate Simulations*. Clim Dyn 32 : 95-111.

Morin, E., Maddox, R.A., Goodrich, D.C., Sorooshian, S. 2005. *Radar Z-R Relationship for Summer Monsoon Storms in Arizona. Weather and Forcasting. American Meteorological Society*. Vol 20, pp 672-679.

Nakagawa, K., Hanado, H., Kawamura, S., Takahashi, N., Iguchi, T. 2010. *Ground Validation of TRMM/PR Measurements*. International Archieves of the Photogrametry, Remote Sensing and Spatial Information Science, Vol 38, Part 8. Kyoto. Japan.

Nanda, S.K., Tripathy, D.P., Nayak, S.K., Mohapatra, S. 2013. Prediction of Rainfall in India using Artificial Neural Network (ANN) Models. *I.J. Intelligent Systems and Applications*, 2013, 12, 1-22. dipublikasikan online November 2013 in MECS (http://www.mecs-press.org/) diunduh tanggal 6 Agustus 2016.

Negri, A.J., Adler, R.F., Wetzel P.J. 1984. *Rain Estimation from satellites : An Examination of the Griffith-Woodley Technique*. *Journal of Applied Meteorology*, 23, 102-116.

Neppel, L., Pujol, N., Sabatier, R. 2011. *A Multivariate Regional Test for Detection of Trend in Extreme Rainfall : The Case of Extreme Daily Rainfall in The French Mediterranean Area*. Advance in Geosciences, 26, 145-148.

Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM). 2005. *Federal Meteorological Handbook No. 11 Doppler Radar Meteorological Observations Part B Doppler Radar Theory and Meteorology*.. Departement of Commerce. USA.

Parwati, Suwarsono, Kusmaningayu, Kartasasmita. 2009. *Penentuan Hubungan Antara Suhu Kecerahan Data MTSAT dengan Curah Hujan Data QMORPH*. Jurnal Penginderaan Jauh Vol 6, 32-42

Peralta-Hernandez, A.R., Balling, R.C., Barba-Martinez, L.R. 2009. *Comparative Analysis of Índices of Extreme Rainfall Events : Variations and Trends from Southern Mexico*. *Atmosfera* 22 (2), 219-228.

Pannekoek, A.J, 1949. *Outline of The Geomorpholgy of Java*. Terjemahan:Budio Basri, pp. 270-326.

Quiros, E., Felicisimo, A.M., Cuartero, A. 2009. Testing Multivariate Adaptive Regression Spline (MARS) as a Method of Land Cover Classification of TERAA-ASTER Satellite Images. *Journal Sensor*. Vol 9, 9011-9028.

Richard, W.G., Crozier, C.L. 1983. *Precipitation Measurement with a C-Band Weather Radar in Southern Ontario*. *Atmosphere Ocean 21* (2). 125-137. Canadian Meteorological and Oceanographic Society.

Rinehart. 2004. *Radar for meteorologists*. Fouth Edition. Columbia, United State of America.

Rosenfeld, D., Wolff, D.B., Atlas, D. 1993. *General Probability Macthed Relations between Radar Reflectivity and Rain Rate*. *Journal of Applied Meteorology*. 32, 50-72.

Rosenfeld, D., Wolff, D.B., Amitai, E. 1994. *The Window Probability Matching Method for Rainfall Measurement with Radar*. *Journal of Applied Meteorology*. 33, 682-693.

Sandy, I.M. 1982. *A Preliminary Statistical Investigation on The Rainfall of Java.* Publikasi No. 199. Direktorat Tata Guna Tanah, Direktorat Jenderal Agraria, Departemen Dalam Negeri.

Santi, R.C.N. 2011. *Teknik Perbaikan Kualitas Citra Satelit Cuaca dengan Sataid*. Jurnal Teknologi Informasi DINAMIK Vol 16 No 2.

Seed, A.W., Sirivardena, L., Sun, X., Jordan, P., Elliot, J. 2002. *On the Calibration of Australian Weather Radars.* Cooperative Research Centre

for Catcmenth Hydrology. Technical Report 02/7, pp 40. Melbourne. Australia.

Semmler, T., Jacob, D. 2004. *Modelling Extreme Precipitation Events – a Climate Change Simulation for Europe*. Global and Planetary Change 44, 119-127.

Seo, D.J., Breidenbach, J.P., Johnson, E.R. 1999. *Realtime Estimation of Mean Field Bias in Radar Rainfall Data*. *Journal of Hydrology*, 233, pp 131-147.

Sethi, N., Garg, K. 2014. International Journal of Computer Science and Information Technologies, Vol. 5 (3) 3982-3984

Seyyedi, H., 2010. *Comparing satellite derived rainfall with ground based radar for North-Western Europe*. *Thesis.* International Institute for Geo-information Science and Earth Observation Enschede, The Netherlands. Hal 18

Shout, J.E., Martin, D.W., Sikdar, D.N. 1979. *Estimating GATE Rainfall with Geosynchronous satellite images. Mon. Wea. Rev.,* 107, 585-598.

Sita, E., Otok, B.W. 2014. *Pendekatan Multivariate Adaptive Regression Splines (MARS) pada Pemodelan Penduduk Miskin di Indonesia Tahun 2008-2012.* Prosiding Seminar Nasional Matematika. Universitas Jember. Jawa Timur.

Synoptic Division of SMRC, HyARC of Nagoya University. 2008. *Understanding the rainfall climatology and detection of extreme weather events in SAARC región : Part I – Bangladesh*. SAARC Meteorological Research Centre (SMRC). No. 21. Bangladesh.

Smith, E.A., Mugnai, A., Cooper, H.J., Tripoli, G.J., Xiang, X. 1992. *Foundation for statistical-physical precipitation retrieval from passive microwave satellite measurement. Part I : Brightness-Temperature Properties of a Time-Dependent cloud radiation model. Journal of Applied Meteorology*., 31, 506-531.

Smith, E.A. 1998. *Results of the WetNet PIP-2 Project*. *Journal Application Meteorology*. 55:1483-1536.

Sollheim, A.L.D.L. 2008. *Two Satellite-Based Rainfall Algorithms, Calibration Methods and Post-Processing Corrections Applied To Mediterranean Flood Cases. Tesis doctoral*. Departement de física Universitat de Les Illes Balears.

Sosrodarsono, S., Takeda, K. 1977. *Hidrologi untuk Pengairan*. Association for International Technical Promotion. Tokyo. Japan.

Spencer, R.W. 1986. *A satellite passive 37-GHz Scattering based method for measuring oceanic rain rates. Journal of Applied Meteorology*, 25, 745-766.

Spencer, R.W., Goodman, H.M., Wood, R.E. 1989. *Precipitation retrieval over land and ocean with SSM/I. Part I : Identification and characteristics of the scattering signal. Journal Atmosphere Ocean Technology*. 6:254-273.

Suk, M.K., Chang, K.H., Nam, K.Y., Kim, K.L., You, C.H., Lee, J.H., Woo, D.M., Won, H., Kim, E.Y. 2008. *Realtime Quantitative Precipitation*

Estimation Using Radar Reflectivity Over the Korean Peninsula. The Fifth European Conference on Radar in Meteorology and Hydrology. ERAD.

Supari.2012. Spatiotemporal Characteristic of Extreeme Rainfall Events over Java Island, Indonesia Case : East Java Province. *Thesis Double Degree* Program UGM-ITC. Yogyakarta.

Tantanee, S. 2007. *GIS Based Probability Technique for ZR relationship Analysis. Journal of Research in Engineerin and Technology*. Faculty of Engineering. Kasetsart University.

Takeuchi, W., Yasuoka, Y. 2009. *Precise Geometric Correction of MTSAT Imagery*. Institute of Industrial Science. University of Tokyo. Japan.

Tjasjono, B. 1999. *Klimatologi Umum*. Institut Teknologi Bandung (ITB). Bandung. Indonesia.

Tod,M.C., Barret, E.C., Beaumont M.J., Bellerby, T.J. 1999. *Estimation of Daily Rainfall Over the Upper Nile River Basin Using a Continously Callibrated Satellite Infrared Technique. Met App.* 6:201-210.

Toth, E., Brath, A., Montanari, A. 2000. Comparison of short-term rainfall prediction models for real-time flood forecasting. Journal of Hydrology vol 239 pp 132–147.

Trewarta dan Horn. 1995. Pengantar Iklim. Gadjah Mada University Press. Yogyakarta.

Tsonis, A.A., Isaac, G.A. 1985. *A new approach for instantaneous rain area delineation in midlatitude using GOES data*. *Journal of Applied Meteorology*, 23, 1939-1410.

Turk, F.J., Marzano, F.S., Smith, E.A. 1998a. *Combining Geostationary and SSM/I Data for Rapid Rain Rate Estimation and Accumulation*. *American Meteorological Sociaty*.462-

Turk, F.J., Marzano, F.S., Smith, E.A., Mugnai, A.1998b. *Using Concident SSM/I and Infrared Satellite Data for Rapid Updates of Rainfall*. Proceeding IGARSS'98-Sensing and Managing the Environment Symposium, IEEE. ISBN 0-783-4406-5.

Vincente, G.A., Anderson, J.R. 1994. *A New Rain Retrieval Technique That Combines Geosyncronous IR and MW Polar Orbit Data for Hourly Rainfall Estimates*. 7th Conference Satellite Meteorology and Oceonography, AMS, pp 34-37.

Vincente, G.A., Scofield,R.A., Menzel W.P. 1998. *The Operational GOES Infrared Rainfall Estimation Technique*. Bulletin American Meteorology and Society. 79:1883-1898

Vulpiani, G., Giangrande, S., Marzano, F.S. 2008. *Raindrop Size Distribution and Rainfall Retrieval from S-band Radar Measurement : Validation of a Neural Network Approach*. The Fifth European Conference on Radar in Meteorology and Hydrology. ERAD.

Wang, W., Chen, X., Shi, P., Gelder, P.H.A.J.M. 2008. *Detecting Changes in Extreme Precipitation and Extrem Stremflow in the Dongjiang River Basin in Southern China*. *Journal of Hydrology and Earth System Sciences*., 12, 207-221.

Ware, E.C. 2005. *Corrections To Radar Estimated Precipitation Using Observed Rain Gauge Data*. *Thesis*. University of Oklahoma.

Weng, F., Zhao, L., Poe, G., Ferraro, R.R., Li, X., Grody, N.C. 2003. *AMSU Cloud and precipitation Algorithms*. Radio Science. 38, 8068-8079.

Wesson, M., Pegram, G.S. 2006. *Improved Radar Rainfall Estimation at Ground Level*. Natural Hazard Earth System Sciences. 6. 323-342.

Wilson J.W., Pollock, D.M. 1975. *Rainfall Measurements During Hurricane Agnes by Three Overlapping Radars. Journal of Applied Meteorology*. Vol 13. No 8.

Wilson, J.W., Brandes, E.A. 1979. *Radar Measurement of Rainfall*. Summary *Bulletin of American Meteorology Society*. Vol 60, No. 9. pp 1048-1058.

WMO (World Meteorological Organization). 2006. *Training Material on Weather Radar System*. Instrument an Observation Methods Report No. 88.

World Weather Research Program, 2009.”*Recommendations for the verification and intercomparison of QPFs and PQPFs from operational NWP models.* WMO Geneva, Switzerland, publishe

Wood, S.J., Jones, D.A., Moore, R.J. 2000. *Static and Dinamic Calibration of Radar Data for Hydrological Use*. *Hydrology and Earth System Science*, 4(4), 545-554.

World Weather Research Program, 2009.”*Recommendations for the verification and intercomparison of QPFs and PQPFs from operational NWP models.* WMO Geneva, Switzerland, publishe

Xin, L., Reuter, G.1997. *Reflectivity-Rain Rate Relationship for Convective Rainshowers in Edmonton*. *Atmosphere Ocean*, 35(4), 513-521

Xu, L., Gao, X., Sorooshian, S., Arkin, P.A., Imam, B. 1999. *A Microwave Infrared Threshold Technique to Improve the GOES Precipitation Index*. *Journal Applicated of Meteorology*. 38:369-579.

Zawadzki, I. 1975. *On Radar - Raingage Comparison*. *Journal of Applied Meteorology*. Vol 14. Pp:1430-4036

Zhang, Q. Chen, X., Stefan, B. 2011. *Spatio-Temporal Variations of Precipitation Extremes in the Yangtze River Basin (1960-2002), Cina*. *Atmospheric and Climate Science*, vol 1, pp 1-8.

Zuidam, R.A. Van. 1985. *Aerial Photo-Interpretation Terrain Analysis and Geomorphology Mapping.* Smith Publisher The Hague, ITC.

http://www2.jpl.nasa.gov/srtm/ diunduh tanggal 12-12-2013
http://srtm.csi.cgiar.org/ diunduh tanggal 12-12-2014
http://weather.is.kochi-u.ac.jp/archive-e.html diunduh tanggal 12-12-2014
http://weather.is.kochi-u.ac.jp/sat/gms.fareast.IR1/ diunduh tanggal 12-12-2014
http://weather.is.kochi-u.ac.jp/sat/CAL/ diunduh tanggal 12-12-2014