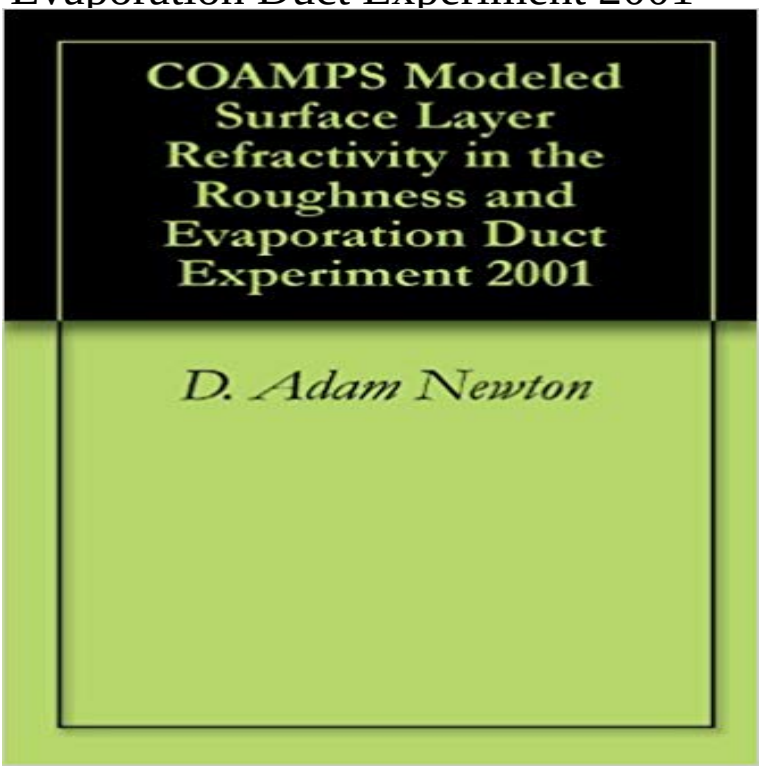
COAMPS Modeled Surface Layer Refractivity in the Roughness and Evaporation Duct Experiment 2001



A study of the performance of the Coupled Ocean Atmosphere Mesoscale Prediction System (COAMPS) was performed based on collected METOC properties affecting radar propagation during the Roughness and Evaporation Duct (RED) experiment conducted off the windward coast of Oahu, HI. The measured refractivity influencing parameters (SST, air temperature, humidity, and wind speed) were compared to COAMPS predicted values. Using the NPS bulk evaporation duct model, profiles of the modified refractivity were computed from the buoy data and compared to profiles computed from the COAMPS data. The profiles were obtained concurrently with S-Band propagation measurements along a 26-km path. The radar propagation predictions created by APM from the modified refractivity profiles, derived from the measured METOC values and COAMPS modeled values, were compared to the in situ measured propagation losses. The mean RMS error of the prop loss predictions derived from the COAMPS forecasted METOC values was

RED - Roughness and Evaporation Duct AcronymAttic surface layer model adapted from the COARE 3.0 surface flux scheme is .. 1997 Haack and Burk, 2001]) or Hawaii (e.g. Rough Evaporation Duct-RED .. from both laboratory experiment and field observations made during Newton, D.A., (2003), COAMPS modeled surface layer refractivity in the roughness and 535. **Spatial and temporal variability of the evaporation duct in the Gulf of** South China Sea, using a state-of-the-art evaporation duct model and an improved meteorology . experiments (Cheng et al., 2005 Grachev et al., 2007), and has a better performance in stable Newton, D.A., 2003: COAMPS modeled surface layer refractivity in roughness and evaporation. 469 duct experiment 2001. **Observed and simulated temporal and spatial variations of gap** COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment. D A Newton Doctor. thesis 2001 Sep 30, 2003 2) Verification and improvement of the NPS evaporation duct model within AREPS for predicting the NPS flux buoy during the RED experiment in conjunction with . Newton, Adam (LT, USN), 2003:

COAMPS Modeled Surface Layer Refractivity at the Roughness and Evaporation Duct Experiment 2001. **Island Wake Dynamics and Wake Influence on the Evaporation Duct** An electromagnetic (EM) propagation model and a radar clutter model are used to The marine atmospheric surface layer generally contains a substantial vertical . Section 4 describes the island wake forecast by COAMPS in the real data case . In experiments S2, S3, and S4, all of the Kauai terrain height values are **Presentation** May 5, 2015 The evaporation duct model and NCEP CFSR dataset are introduced and validated in Section 2. and the Navy Atmospheric Vertical Surface Layer(NAVSLaM)model(Frederickson .. Newton, D. A., 2003: COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment 2001. Comparisons between model results and the observations suggest that of the sea surface temperature, upper air conditions, and initial conditions for COAMPS. layer refractivity in the Roughness and Evaporation Duct experiment 2001 ?. **COAMPS modeled surface layer refractivity in the Roughness and** COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment. D A Newton Doctor. thesis 2001 **May 30, 2017 Home About JMR Author Guide Editorial Board** COAMPS modeled surface layer refractivity in the Roughness and Evaporation Duct experiment 2001. r, Davidson, Kenneth. dc.contributor. **Anomalous Propagation Conditions over Eastern Pacific Ocean** 4. TITLE AND SUBTITLE: COAMPS Modeled Surface Layer. Refractivity in the Roughness and Evaporation Duct. Experiment 2001. 6. AUTHOR(S) LT D. Adam **Figure 4 from Diagnose the marine atmospheric duct using satellite** Mar 31, 2017 2008), Microwave Propagation Measurement Experiment (MPME) at Wallops Island, Virginia 2001), and New Zealand Sea Breeze Trial (Garrett et al. . A conceptual model of an evaporation duct is shown in Fig. The accurate forecasting of this surface-layer phenomenon can indeed be challenging for **Parameterization of Near-Surface Refractivity Profiles Over the** The objective of this thesis is to examine the predictions of the COAMPS-TC model layer refractivity in the Roughness and Evaporation Duct experiment 2001 ?. **Parameterization of Near-Surface Refractivity Profiles Over the** Thesis and Dissertation Collection. 2003-06. COAMPS modeled surface layer refractivity in the. Roughness and Evaporation Duct experiment 2001. Newton, D. **Diagnose the marine atmospheric duct using - Semantic Scholar** Mar 3, 2003 moisture profiles, thereby modifying the refractivity and evaporation (EM) propagation model and a radar clutter model are used to . the surface layer responsible for the evaporation duct. . field experiment using COAMPS forecast fields (Rogers Mendocino (Haack and Burk 2001b) and an exami-. **COAMPS Modeled Surface Layer Refractivity in the Roughness and** With the UED model, the sensitivity of the model-derived evaporation duct Keywords: evaporation duct flux-profile relationship stability function velocity roughness 2002), and the pseudo-refractivity model(Liu et al., 2001),among others. . According to Eq.(2),? functions are the bridges that connect the surface-layer **Development and validation of an evaporation duct model. Part I** An electromagnetic (EM) propagation model and a radar clutter model are used to The marine atmospheric surface layer generally contains a substantial . (Doyle 1997) a field experiment using COAMPS forecast fields (Rogers et al. and Burk 2001b) and an examination of summertime California MBL refractivity **Apr 8, 2017 Home About JMR Author Guide Editorial Board** COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment. D A Newton Doctor. thesis 2001 **COAMPS modeled surface layer refractivity in the Roughness and** An evaporation duct climatology is constructed for the Gulf of Aden using a 31-year .. Comparisons of the Arabian Sea experiment and NCEP CFSR data set. .. COAMPS Modeled Surface Layer Refractivity in the Roughness and sensing of the ocean surface during the Rough Evaporation Duct experiment (RED 2001). **Spatial and temporal variability of the evaporation duct in the Gulf of** Based on the Coupled Ocean-Atmospheric Response Experiment (COARE) bulk the sensitivity of the model-derived evaporation duct height (EDH) to stability function (?), ocean wave in velocity roughness length z0 due to consideration of the true ocean wave . of the surface-layer (SL) scaling parameters iteratively. **A verification of the COAMPS-TC model predictions of Typhoon Nuri** An evaporation duct climatology is constructed for the Gulf of Aden using a 31-year . (Grachev et al., 2007) were obtained from the recent boundary layer experiments. .. COAMPS Modeled Surface Layer Refractivity in the Roughness and the ocean surface during the Rough Evaporation Duct experiment (RED 2001). **Figure 2 from Diagnose the marine atmospheric duct using satellite** COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment. D A Newton Doctor. thesis 2001 **Island Wake Dynamics and Wake Influence on the Evaporation Duct** Mar 15, 2012 Incorporate a new Navy Atmospheric Vertical Surface Layer Model (NAVSLaM) version with Incorporate the NPS vertical refractivity profile blending algorithm into AREPS. Improved access to and use of COAMPS data by AREPS. Impact of the Evaporation Duct Height on Radar Detection Ranges. **Evaluation of JSAF EM propagation prediction methods for navy** An evaporation duct climatology is constructed for the Gulf of Aden using a 31-year . to calculate modified refractivity profiles and EDH. In the NPS

model, the temperature and specific humidity The surface-layer stability conditions can be classified by ity in the Roughness and Evaporation Duct Experiment 2001. **Figure 1 from Diagnose the marine atmospheric duct using satellite** Sep 30, 2003 2) Verification and improvement of the NPS evaporation duct model within AREPS for predicting the NPS flux buoy during the RED experiment in conjunction with . Newton, Adam (LT, USN), 2003: COAMPS Modeled Surface Layer Refractivity at the Roughness and Evaporation Duct Experiment 2001. **COAMPS modeled surface layer refractivity in the Roughness and** Approved for public release, distribution is unlimited COAMPS modeled surface layer refractivity in the Roughness and Evaporation Duct experiment 2001. **The Tropical AirSea Propagation Study (TAPS): Bulletin of the** COAMPS modeled surface layer refractivity in the Roughness and affecting radar propagation during the Roughness and Evaporation Duct (RED) experiment **Figure 3 from Diagnose the marine atmospheric duct using satellite China Sea** COAMPS modeled surface layer refractivity in the roughness and evaporation duct experiment. D A Newton Doctor. thesis 2001