CURRICULUM VITA

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Education:

B.S. in Meteorology (minor in Mathematics), The State University of New York at Oneonta, 1983
M.S. in Meteorology, The Pennsylvania State University, 1986

EMPLOYMENT HISTORY:

Research Assistant at the Pennsylvania State University 1983-1986.
Research Meteorologist at the Hurricane Research Division of AOML, 1987- present

Honors and Awards:

1997 - Department of Commerce Bronze Medal- (Co-recipient along with Mark DeMaria of NOAA/NESDIS) for the development of a model for predicting the decay of hurricane winds after landfall.

2002 - Banner I. Miller Award - (Co-recipient along with Mark DeMaria of NOAA/NESDIS) for the first ever model-based skillful operational intensity forecasts of tropical cyclones documented in the two papers published during the years 1998-2001, 'An Updated Statistical Hurricane Intensity Prediction Scheme (SHIPS) for the Atlantic and Eastern North Pacific Basins' (WAF, Vol. 14) and 'On the Decay of Tropical Cyclone Winds after Landfall in the New England Area' (JAM, Vol. 40).

2002- NASA Group Achievement Award- presented to the Fourth Convection and Moisture Experiment (CAMEX 4) Science Team for outstanding accomplishments and contributions to the extremely successful Fourth Convection and Moisture Experiment (CAMEX 4) conducted from Jacksonville, Florida in August and September 2001.

2011- Department of Commerce Bronze Medal- (Co-recipient along with Mark DeMaria and John Knaff of NOAA/NESDIS) for providing skillful operational hurricane intensity models as demonstrated by the NHC forecast verifications for the 2009 and 2010 seasons.

2011- Group Achievement Award. For outstanding achievements to Genesis and Rapid Intensification Processes (GRIP) awarded for outstanding achievements during the Genesis and Rapid Intensification and Airborne Earth Science Mission in 2010.

Major Accomplishments:

1987-present.

Served as ODW and GPS scientist during operational synoptic surveillance missions onboard the NOAA P-3 and G-IV aircraft.

1989-present.

Co-developer (along with Mark DeMaria of NOAA/NESIDS of the Statistical Hurricane Intensity Prediction scheme (SHIPS). The SHIPS model provides operational tropical cyclone intensity forecasting guidance to the National Hurricane Center for both the Eastern North Pacific and the Atlantic basins.

1995-present.

Co-developer (along with Mark DeMaria of NOAA/NESDIS) of an empirical model to predict the decay of tropical cyclone winds after landfall. The inland wind decay model has been incorporated into the HUREVAC model that is utilized for evacuation planning by the Federal Emergency Management agency.

The decay model was also incorporated into SHIPS making overland intensity predictions possible for the first time utilizing that model.

Served as PI on a NOAA Joint Hurricane Testbed (JHT) funded project that developed methodology for employing the empirical decay model to predict the maximum wind and 34,50, and 64 kt wind radii of landfalling tropical cyclones based upon the NHC official track and landfall intensity forecast. This technique was successfully transitioned to the NHC for operational use prior to the 2008 Hurricane Season.

2001-present.

Co- developer (along with Mark DeMaria of NOAA/NESDIS of the SHIPS Rapid intensification index (RII). The SHIPS-RII provides estimates of the probability of rapid intensification (RI) of Atlantic and eastern North Pacific tropical cyclones from t=0 h to t=24 h. The SHIPS-RI index was transitioned to the NHC for operational use prior to the 2004 and 2006 Hurricane Seasons in the Atlantic and eastern North Pacific, respectively and has been continuously updated based upon research conducted with the support of the NOAA Joint Hurricane Testbed (JHT) program.

Select Publications:

Kaplan, J. and W.M. Frank: The large-scale inflow-layer structure of Hurricane Frederic (1979), 1993, *Mon. Wea. Rev.*, **121**, 3-20.

DeMaria, M., and J. Kaplan, 1994: A statistical hurricane intensity prediction scheme (SHIPS) for the Atlantic basin. *Wea. Forecasting*, **9**, 209-220.

DeMaria, M, and J. Kaplan, 1994: Sea Surface temperature and the maximum intensity of Atlantic tropical cyclones. *J. Climate*, **7**, 1324-1334.

Kaplan, J., and M. DeMaria, 1995: A simple empirical model for predicting the decay of tropical cyclone winds after landfall. *J. Appl. Meteor.*, **34**, 2499-2512.

DeMaria, M., and J. Kaplan, 1999: An updated statistical hurricane intensity prediction scheme (SHIPS) for the Atlantic and Eastern North Pacific basins. *Wea. Forecasting*, 1**4**, 326-337.

Kaplan, J., and M. DeMaria, 2001: On the decay of tropical cyclone winds after landfall in the New England region. *J. Appl. Meteor.*, **40**, 280-286.

Kaplan, J., and M. DeMaria, 2003: Large-scale characteristics of rapidly intensifying tropical cyclones in the North Atlantic Basin. *Wea. Forecasting,* **18,** 1093-1108**.**

_____, M. Mainelli, L.K. Shay, J.A. Knaff, and J. Kaplan, 2005: Further improvements to the Statistical Hurricane Intensity Prediction Scheme (SHIPS), *Wea. Forecasting*, **14**, 1093-1108.

DeMaria, M, J.A. Knaff, and J. Kaplan, 2006: On the decay of tropical cyclone winds crossing narrow landmasses. J. Appl. Meteor., 45, 491-499.

Kaplan, J., M. DeMaria, and J. A. Knaff, 2010: A revised tropical cyclone rapid intensification for the Atlantic and eastern North Pacific basins. *Wea. Forecasting, **25**,* 220-241.

Sampson, C. R., J. Kaplan, J. A. Knaff, M. DeMaria, and C. A. Sisko, 2011: A deterministic rapid intensification aid, *Wea. Forecasting*, **26**, 579-585.

Rozoff, C.M., C.S. Velden, J. Kaplan, J.P. Kossin, and A.J. Wimmers, 2015: *Improvements in the probabilistic prediction of tropical cyclone rapid intensification with passive microwave observations*. Wea. and Forecasting, **30,** 1016-1038.

Kaplan, J., C.M. Rozoff, M. DeMaria, C.R. Sampson, J.P. Kossin, C.S. Velden, J.J. Cione, J.P. Dunion, J.A. Knaff, J.A. Zhang, J.F. Dostalek, J.D. Hawkins, T.F. Lee, and J.E. Solbrig, 2015. *Evaluating environmental impacts on tropical cyclone rapid intensification predictability utilizing statistical models, 2015,* Wea. and Forecasting, **30**, 1374-1396.