Abstract: JPSS- Students Professional and Academic Readiness with Knowledge in Satellites (SPARKS): A Unique Workforce Training Initiative to Create a Diverse Workforce in NOAA Mission-Related Sciences

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NOAA CREST center goals resonate/align with NOAA's Strategic Science and Education Mission and Goals. Since 2001, NOAA CREST program, majorly funded by NOAA's Educational Partnership Program with Minority Serving Institution (EPP/MSI) has been able to conduct NOAA mission aligned sciences and at the same time recruit, train and graduate more than 700 students in NOAA sciences who have been able to join the workforce in NOAA STEM related fields – in Academia, Private Sector and Government. The JPSS – Students Professional and Academic Readiness with Knowledge in Satellites (JPSS-SPARKS) initiative was created in 2015-2016 through funding from NOAA JPSS program - to help specifically address potential employers' (particularly NOAA and NOAA Contractors) needs and hone the core competencies and job-ready skill-sets of the graduating students (particularly from Underrepresented Minority Groups) to increase the NOAA and NOAA contractors' diverse workforce. JPSS-SPARKS is a result of the synergistic partnership between Academia (CUNY-Private Sector (IMSG) and the Government (NOAA-JPSS) which institutionalized its first summer workforce training in summer2016. Four CREST graduate students participated in the 10-week summer 2016 training hosted by a team of IMSG scientists and was housed in IMSG in coordination and support from ESSIC, UMD and NCWCP, College Park, MD. The overarching objectives of the summer training was (1) to introduce the early career scientists to JPSS satellite missions and advance their understanding to JPSS Science Product; Algorithm Development, Calibration/Validation and Research to Operations protocols in the real-world environment. The interns also learnt various

programming skills in Fortran 90, C++, and PERL, besides they were immersed in series of seminars/workshops. Through this paper, the authors will share their success stories and future vision and plan for JPSS –SPARKS.