Adoption of a New Data Processing Scheme for Dobson Data

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NOAA and its predecessors have operated a network of Dobson ozone spectrophotometers beginning with measurements made at Mauna Loa observatory in 1957. As of today this network consists of 15 stations. A complete list of the stations and the operational status of each is displayed in Table 1. Several of these station have have been automated using a software package
designed and maintained by the Japanese Meteorological Agency (JMA). This package (WINDOBSON) features data processing and enhanced data analysis tools in addition to functions needed for data collection. The current computer and operating systems used to process data from the NOAA Dobson network are antiquated and increasingly difficult to maintain. This situation has forced a decision to adopt (WINDOBSON) for future processing of data collected by all stations within its network; not just those automated with the JMA system. Data collected from the station in Lauder New Zealand between 1992 and 2010 was reprocessed using the JMA software and compared to results from our contemporary system in order to investigate any potential systematic bias.

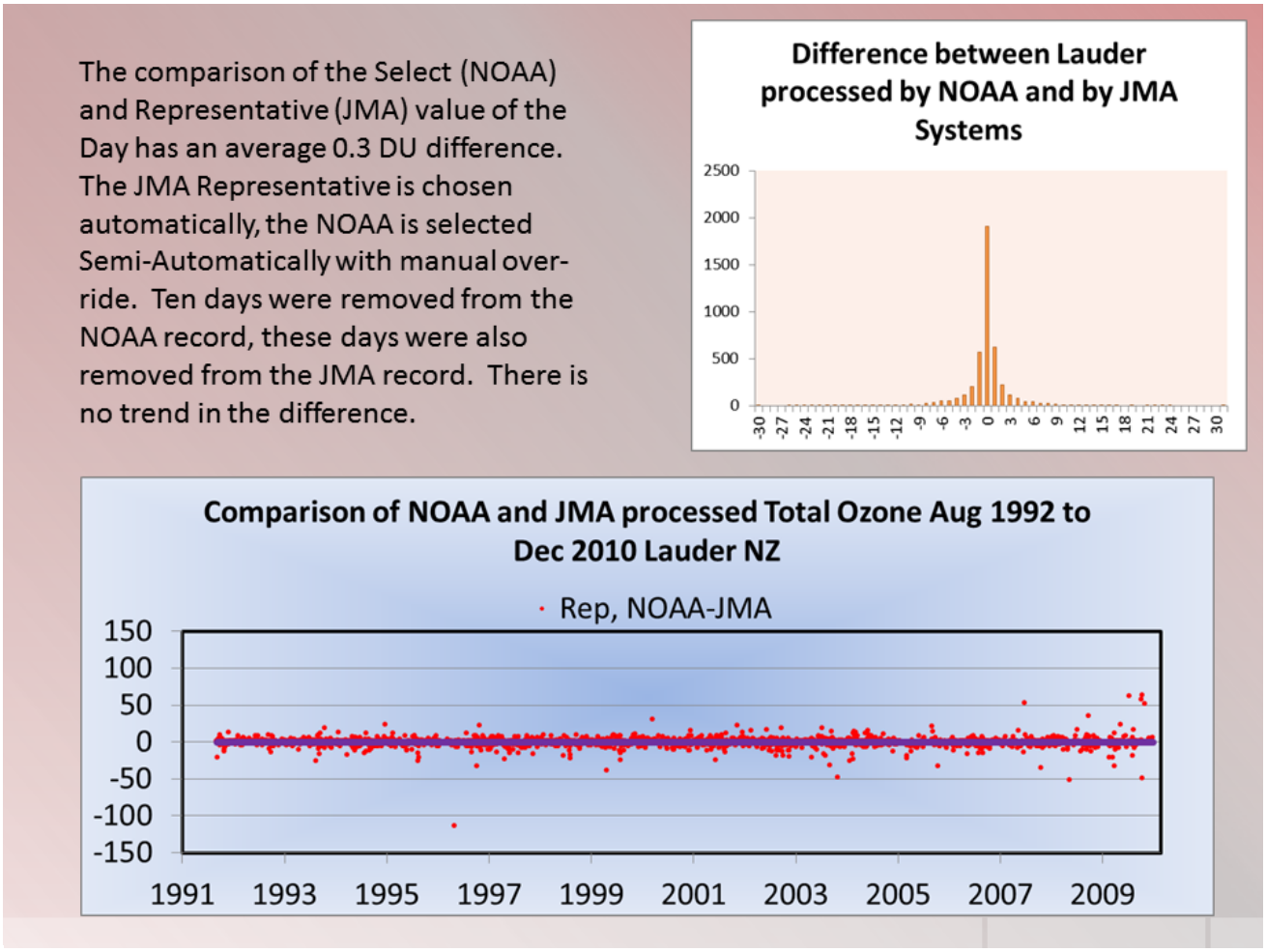

Figure 1.