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Dixon

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(54) **REAL-TIME ADAPTIVE WEATHER SURVEILLANCE SYSTEM AND METHOD**

(56) **References Cited**

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- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 628 days.

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(57) **ABSTRACT**

A weather surveillance system includes a data ingest module for receiving weather forecasts of a region, and multiple cameras for viewing targets of interest and providing imagery of the targets of interest, wherein the targets of interest are located within the region. The data ingest module also receives the imagery from the multiple cameras. The system also includes an analytics module for selecting at least one of the multiple cameras; a data fusion module for combining the received weather forecasts of the region with received imagery of the selected camera; and an output module which provides fused data to a user for verifying the weather forecast in the target of interest. The output module includes a web-based service module for collecting, storing and disseminating the fused data to the user.

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(52) **U.S. Cl.**

CPC **G01W 1/00** (2013.01); **H04N 7/181** (2013.01)

(58) **Field of Classification Search**

CPC G06T 2207/30192; H04N 21/8126
See application file for complete search history.

25 Claims, 16 Drawing Sheets

