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(54) **IMAGER OPTICAL SYSTEMS AND METHODS**

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(71) Applicant: **Teledyne FLIR Commercial Systems, Inc.**, Goleta, CA (US)

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(72) Inventors: **David Ovrutsky**, Charlotte, NC (US);  
**William J. Hall**, Charlotte, NC (US)

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(57) **ABSTRACT**

Imager optical systems and methods are provided. In one example, an imaging device includes a window configured to transmit electromagnetic radiation associated with a scene. The imaging device further includes a lens system. The lens system includes a first lens element configured to receive the electromagnetic radiation from the window and transmit the electromagnetic radiation. An aperture stop is positioned between the window and a surface of the first lens element adjacent to the window. The lens system further includes a second lens element adjacent to the first lens element and configured to receive the electromagnetic radiation and direct the electromagnetic radiation to the detector array. The imaging device further includes a detector array including detectors. Each detector is configured to receive the electromagnetic radiation from the lens system and generate a thermal image based on the electromagnetic radiation. Related methods and systems are also provided.

