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- U.S. PATENT DOCUMENTS

- (Continued)

- WO WO2015139224 A1 \* 9/2015

- International Search Report dated Sep. 7, 2015 in connection with  
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### Related U.S. Application Data

- (57) **ABSTRACT**

- Methods and apparatus are provided for a network to control a power of transmissions from a User Equipment (UE) on a first Cell Group (CG) or on a second CG depending on a communication delay between the two CGs. Methods and apparatus are also provided for a UE configured with a first CG and a second CG in Carrier Aggregation (CA) operation to determine whether or not to transmit a channel conveying control information when the UE needs to reduce a respective nominal transmission power. Methods and apparatus are additionally provided for a network to transmit and for a UE to receive a Transmission Power Control (TPC) command for transmission on a cell of a first CG or on a cell of a second CG.

- (52) **U.S. Cl.**  
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See application file for complete search history.

**20 Claims, 8 Drawing Sheets**

