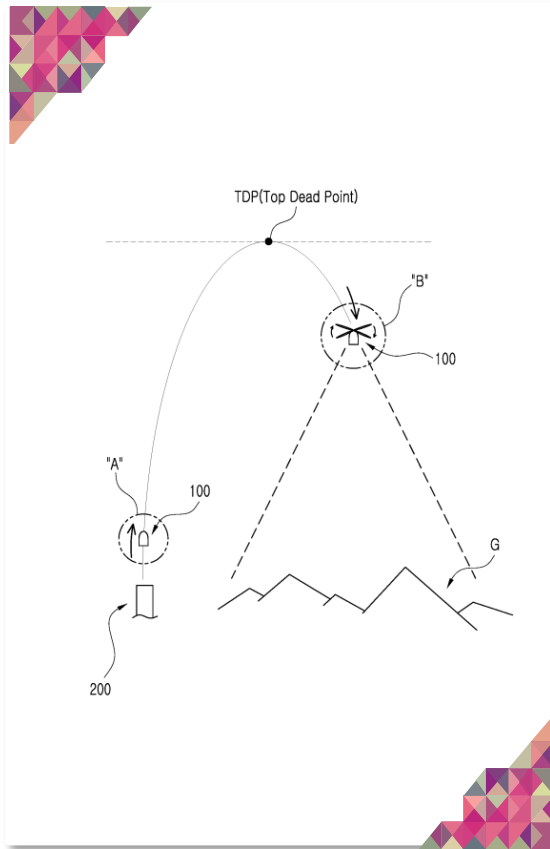


Emergency Response

Representative Patent 02

❖ Title of Invention : **Non-motorized type flying unit for observation**

❖ Application Number. : KR2016-0140243



<Representative drawing>

Application of Technology and Field of Use

- ◆ **Flight vehicles for monitoring and for infiltration**
- ◆ **Impossible to observe affected area or occurrence of response delay in case of emergency**
 - In case of using a manned/unmanned aerial vehicle, even in emergency situations such as fire and lifesaving, the response may be delayed due to the preparation time, or observation may be impossible due to the impossibility of flight due to environmental restrictions.
- ◆ **Exposure of location of flight vehicle due to noise during stealth operation**
 - Location of the manned/unmanned aerial vehicle is exposed due to noise generated by a power unit when a mission requiring security needs to be performed.

Features of Technology

- A body unit installed in a launcher to fly in a preset target direction when the launcher is operated, and fall to the ground by its own weight at a position of a Top Dead Point (TDP)
- A propeller unit coupled to the body unit, to delay the falling speed of the body unit by automatically generating a rotational force by the drag force acting on the body unit when the body unit falls
- An imaging unit installed in the body unit, to acquire image information on the ground when the body unit falls

Emergency Response

Representative Patent 02

Technical Effects

◆ Simple to use

- Having a structure for acquiring image information associated with the ground while falling to the ground by automatically generating the rotational force by drag, when it is installed on a launcher and launched toward a high altitude, in emergency situations such as disasters and public safety.
- Easy to use and not require any separate operation during flight.
- Not require preparation time for operation.

◆ Minimization of location exposure

- Minimize the probability of location exposure even when a mission requiring security is performed, because there is no separate power unit.

Social, Environmental, Economical Effects



◆ Possible to reduce costs

- Since the structure is simple and a separate power unit is not required, it is possible to be maintained and managed at a lower cost compared to the existing manned/unmanned aircrafts.

◆ Possible to quickly identify extent of damage in the event of disasters

- Possible to monitor the field situation even though there is not separate preparation time for operation in case of emergency such as fire or wildfire.
- Expected to reduce the extent of damage and help life saving by quickly monitoring the scene of a fire.