

RPAS Road Map for Finnish Rescue Services

1-2.11.2016 RPAS as a support tool for
Emergency and Response Services

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PRESENTATION Content

- **Rescue Services in Finland**
- **RPAS for Incident commanding and leadership**
- **RPAS road Map Content for Rescue Services**





Firefighting

The unmanned K-MAX is capable of aerial fire suppression 24/7, and offers hotspot detection. K-MAX maintains its capabilities in hot temperatures, delivering a measurable performance advantage for operators. Even when conditions limit visibility for pilots, the K-MAX UAS can provide automated water pick-up, delivery, and line-building.





Päivystävä palomestari Petri Vehniäinen. Kuva: Niko Mannonen / Yle

- No need for pilot license – so easy to flight
- Now we are trying to get experience, how we can use it

Using on operations before R&D?

Kopterilla tilannekuva nopeasti



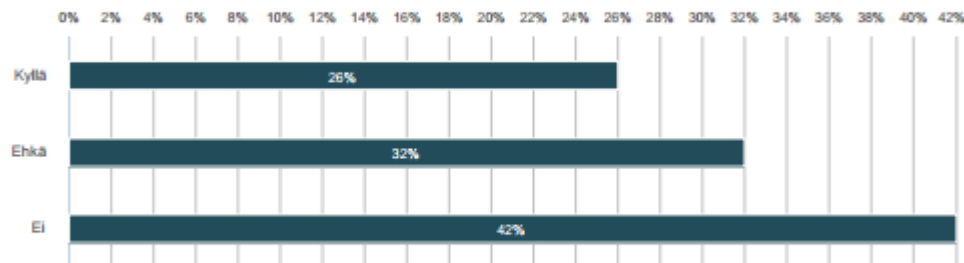
Tilannekuva voidaan selvittää radio-ohjattavalla multikopterilla minuuteissa. Poliisi käyttääkin koptereita jo tottuneesti – tulipaloissakin, jolloin palomestarit ovat saaneet tapahtumasta käyttöönsä laadukkaan ja reaaliaikaisen videokuvan. Nyt kopteria kehoitettiin Kellokosken vp:n kanssa.

- RPAS unit providing situational picture fast
- Executive fire officers can get real time video feed during incident commanding

How we are changing the process of incident commanding?

Questionnaire for 22 Rescue Departments + Emergency Service College

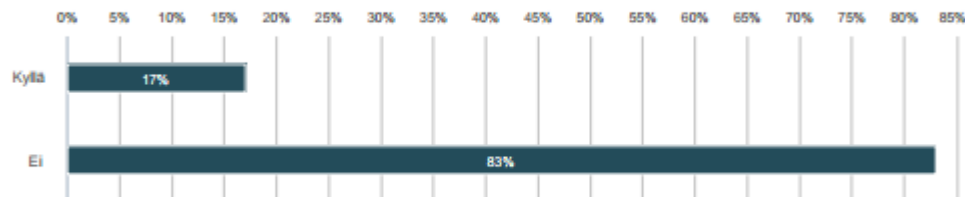
Are you going to buy RPAS systems?



	N	Prosentti
Kyllä	5	26,32%
Ehkä	6	31,58%
Ei	8	42,11%

Do you have RPAS systems?

Vastaajien määrä: 23



	N	Prosentti
Kyllä	4	17,39%
Ei	19	82,61%

Hotel fire at PORI 28.5.2016


with RPAS units



Kotimaa 1.6.2016 klo 16:36

Poliisi etsii Porin hotellipalon syttymiskohtaa kauko- ohjattavalla kopterilla – video

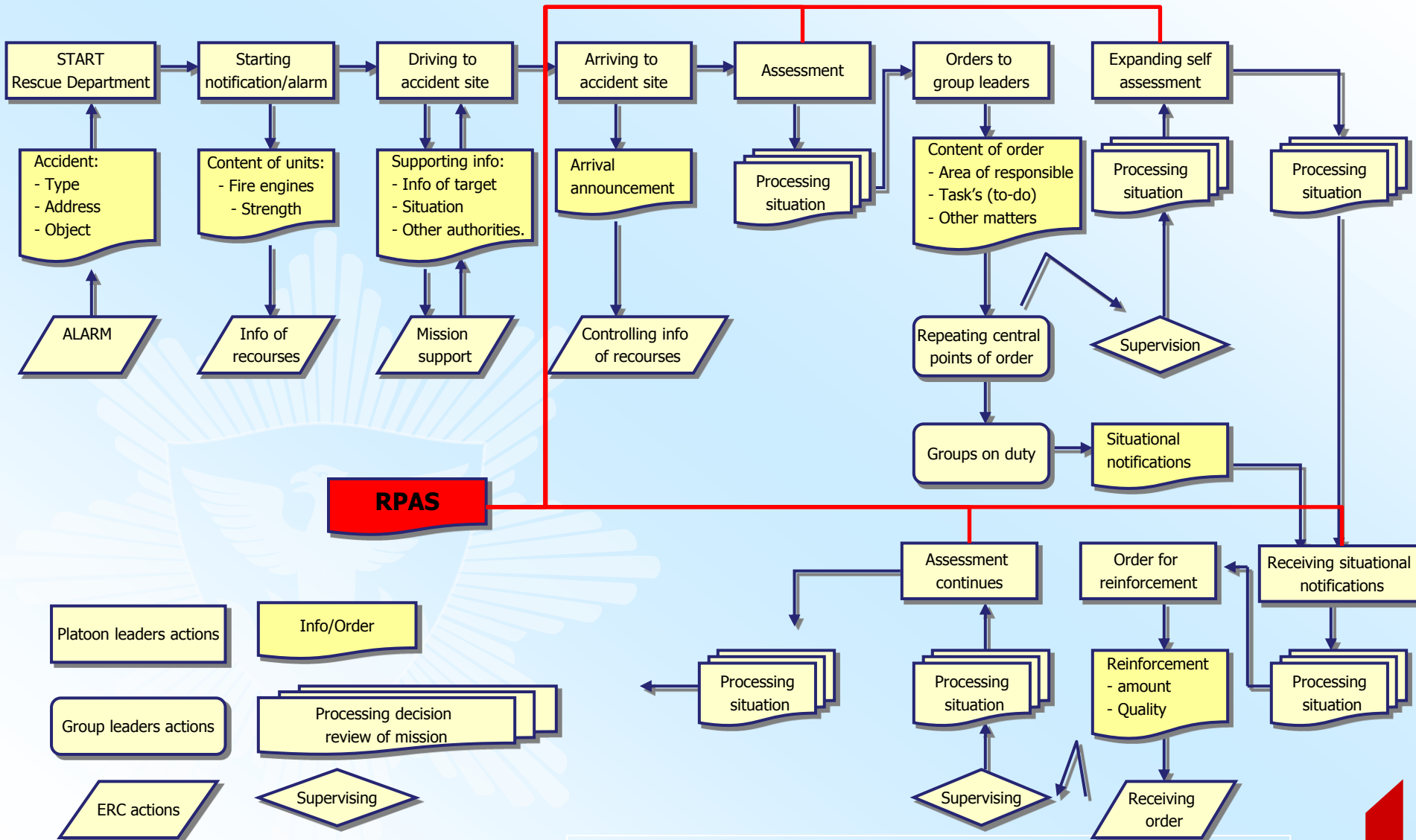
Poliisi käyttää nykyään työvälineenään kopterikameroita. Esimerkiksi Porin lauantaisten hotellipalon syttymiskohtaa selvitettiin kauko-ohjattavalla kopterikameralla. Ylhäältä käsin saadaan poliisia hyödyntävää kuvaa rikos- ja onnettomuuspaikoista.

 Suosittele 48 henkilöä suosittelee tätä. Rekisteröidy ja näe, mitä kaverisi suosittelevat.

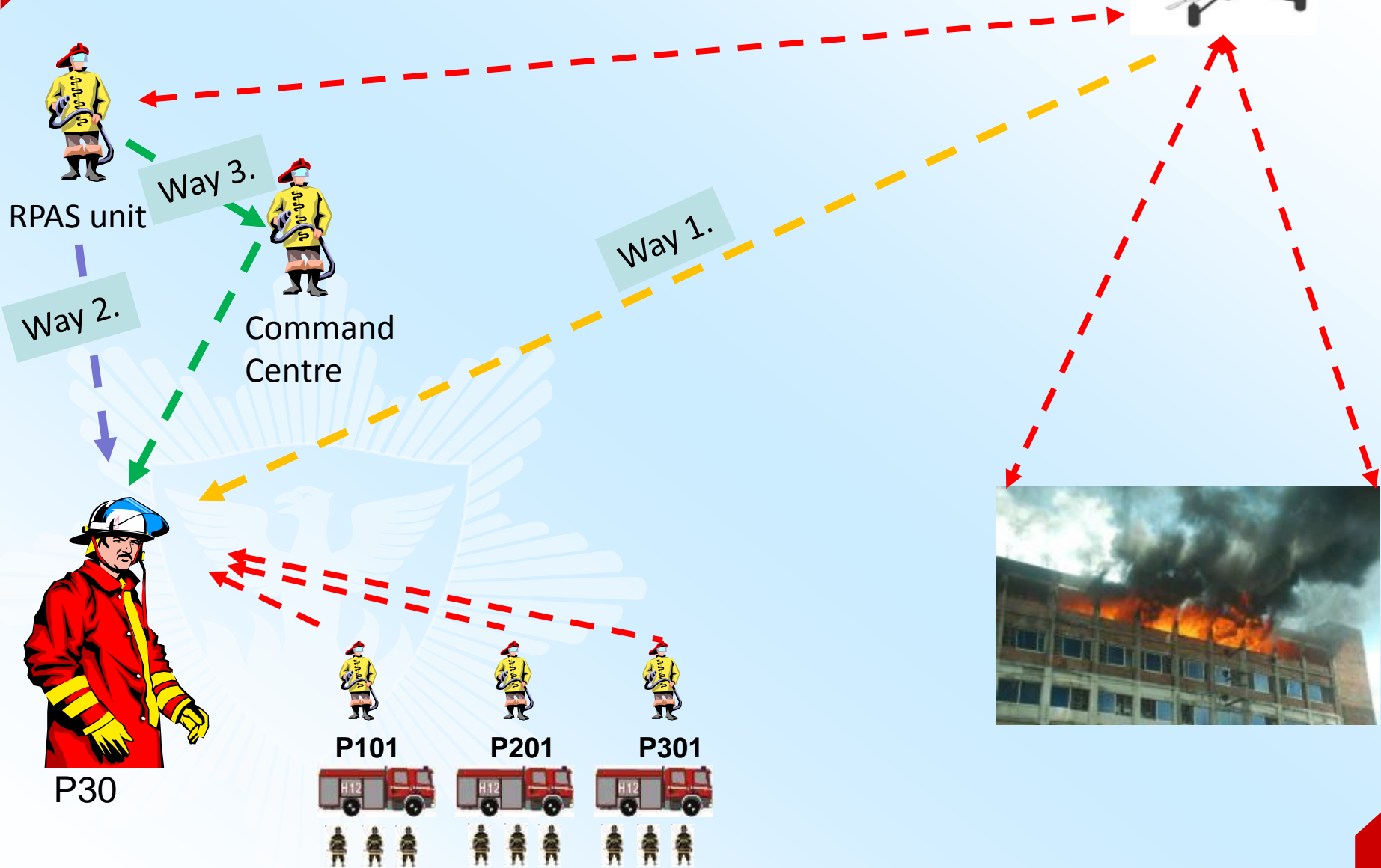


Lounais-Suomen poliisi antoi Ylen käyttöön kauko-ohjattavan kopterin kuvaa lauantaista hotellipalosta.

Example on platoon leader working proses from alarm to calling reinforcements



Transferring /interpreting data to incident commanders (3 ways) - How it affect amount of transferred data



Utilizing RPAS at Fire and Rescue service branch operative missions



P30

Improving:

1. Situational picture
2. Operational Picture
3. Situational awareness

Improving decisions on:

Technical-,
Tactical-,
Strategical level

Monitoring work safety

Allocation of units

Evaluating of needed resources

Locating operative resources

Recording situation

Planning

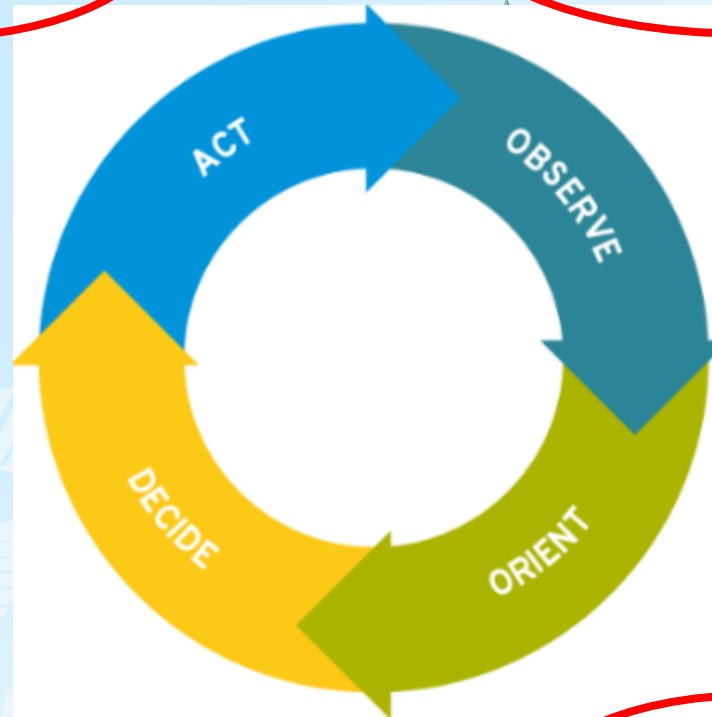
Determine Operational focus

Building situational picture

Gathering intelligence

Supervision
VALVONTA

Assessment /review
TILANNEARVIO




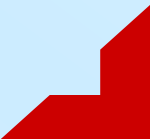
KÄSKY
Order

PÄÄTÖS
Decision



ROAD MAP content for Finnish Rescue Services?

- **Research and Development**
 - RPAS as part of leadership proses
 - Sensors specific for Fire and Rescue Services
 - Standard Operation Procedures to RPAS
 - **Processing information**
 - Best sensors for different accident scenarios
 - Interpreting sensor feed
 - How to distribute info
 - How to handle life circle of information
 - **Funding**
 - **Co-operation**
 - Authorities
 - Manufacturers
 - International
 - **Collecting and analyzing statistics of RPAS usage**
 - **Providing best practices for Rescue Services**
- 



AVIATION

WATCH A DRONE GET SOAKED BY A FIREFIGHTER

MAYBE NEXT TIME ASK PERMISSION BEFORE FLYING OVER A FIRE

By Kelsey D. Atherton June 11, 2015



<http://www.popsci.com/drone-films-firefighters-gets-soaked>

<https://www.youtube.com/watch?v=W0yXxpoAOYQ>



RÄDDNINGSVÄSENDET

THANK YOU FOR YOUR ATTENTION

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