

Znanstveno-stručni skup Hrvatskog meteorološkog društva

Meteorološki izazovi 3

EKSTREMNE VREMENSKE PRILIKE I UTJECAJ NA DRUŠTVO

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BUILDING RESILIENCE AGAINST SPACE WEATHER EFFECTS

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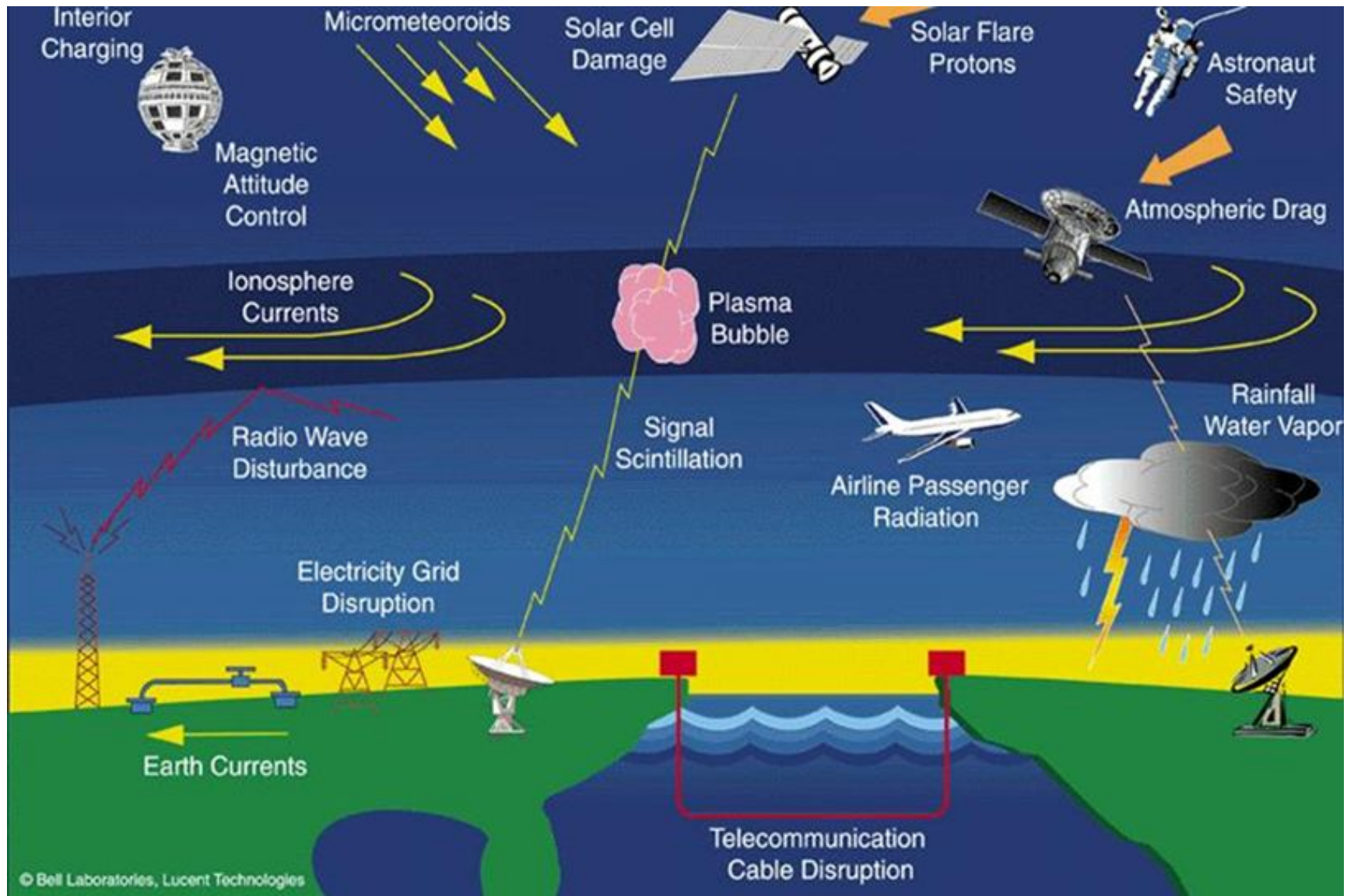


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- Agenda
- Introduction
- Problem description and previous research
- Technology Resilience Scheme against space weather
- Discussion
- Conclusion

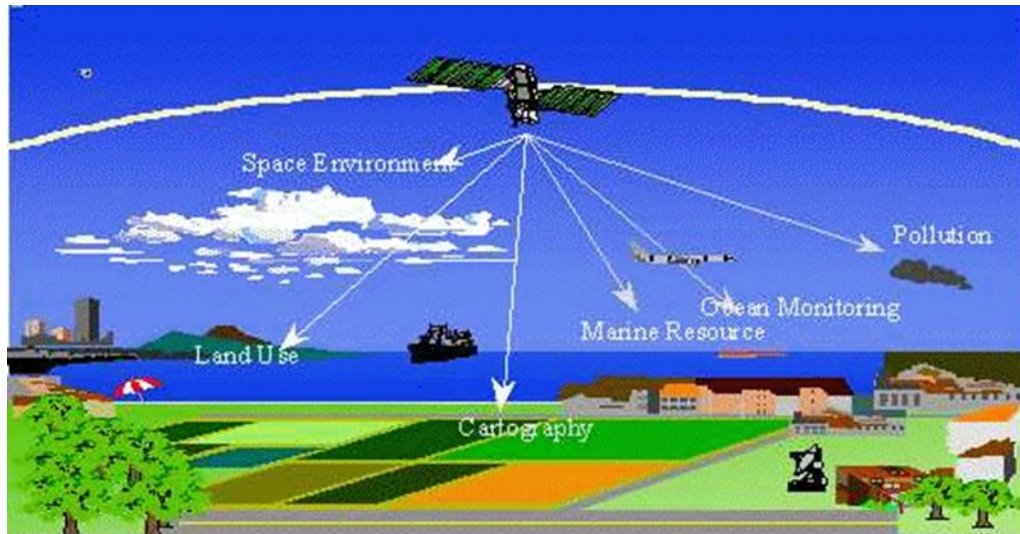
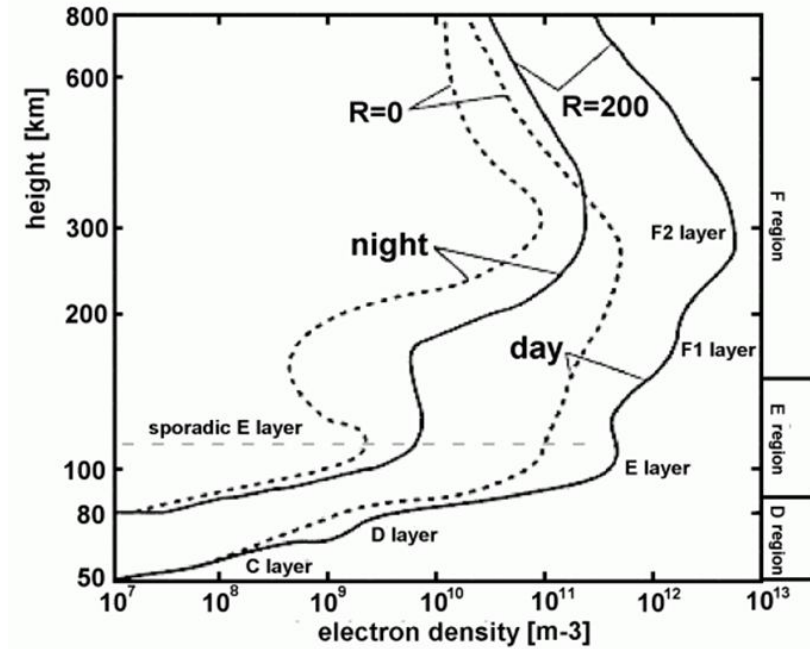
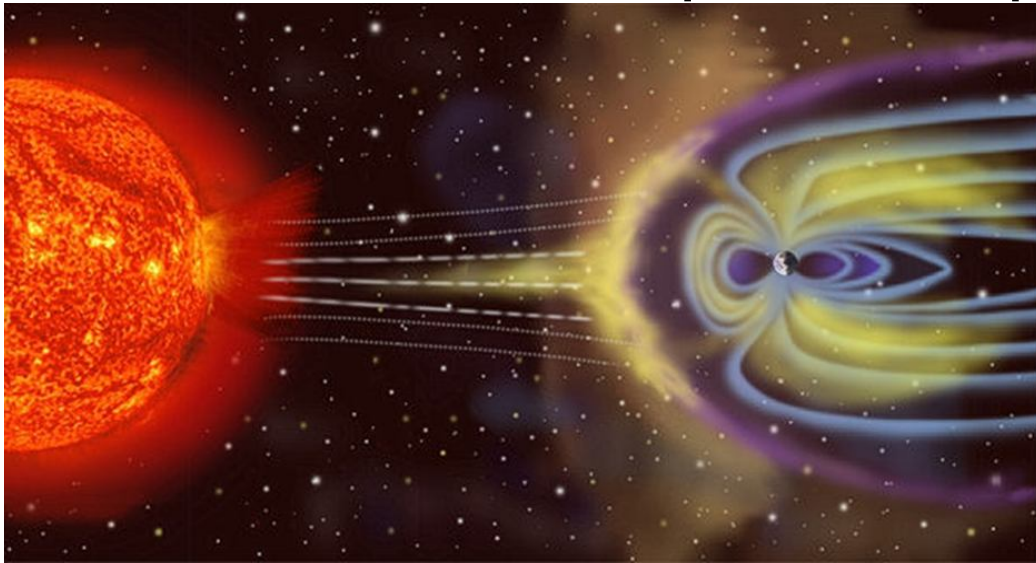
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- Introduction



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- Problem description and previous research



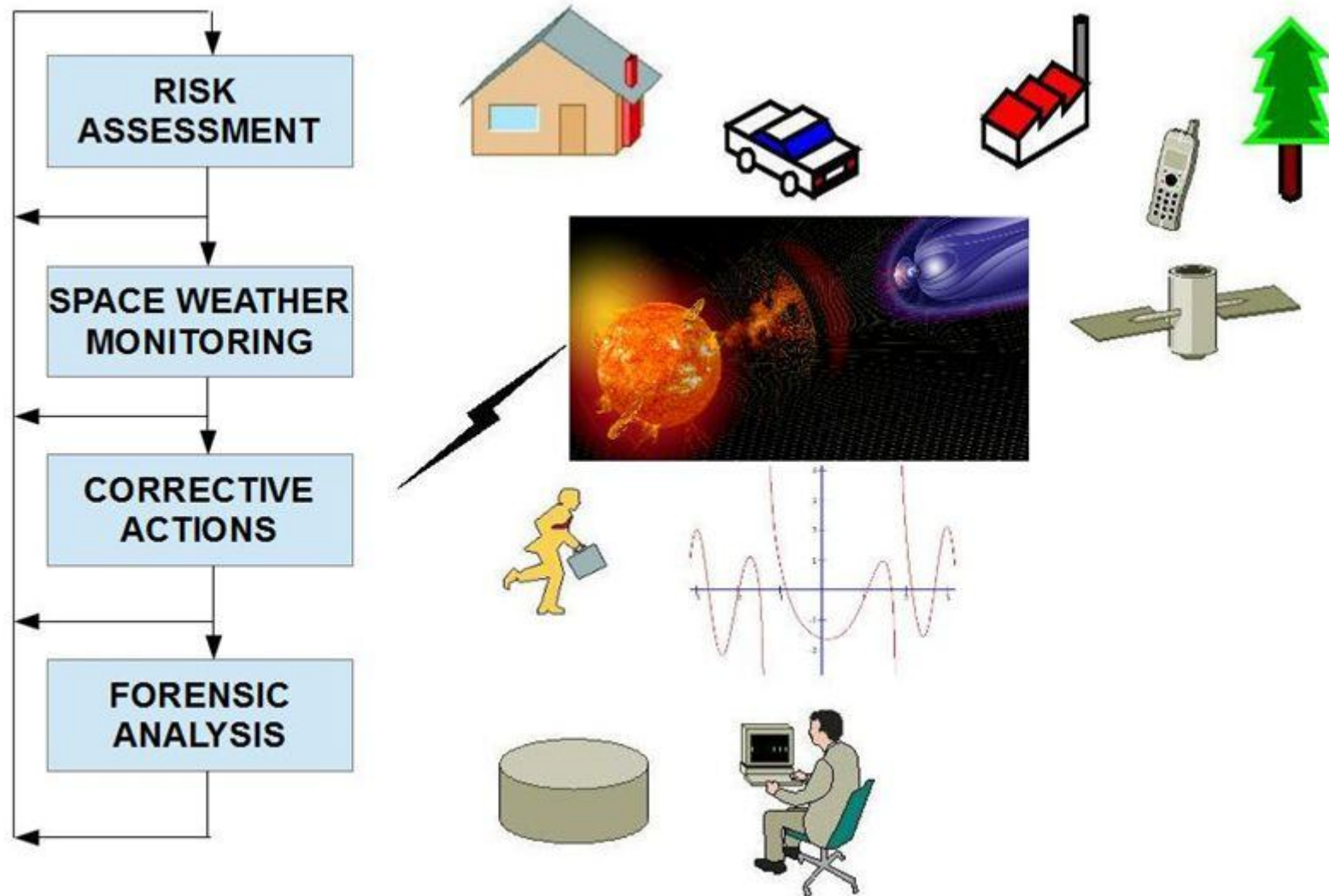
$$\oint_{\delta \Sigma} \mathbf{E} \cdot d\mathbf{l} = -\frac{d}{dt} \int_{\Sigma} \mathbf{B} \cdot d\mathbf{A} \quad \Delta t_{iono} [m] = K \cdot \int_0^H N(h) \cdot dh$$

$$e = -\frac{d\Phi_B}{dt} \quad TEC = \int_0^H N(h) \cdot dh$$

$$n^2 = 1 - \frac{X}{1 - i \cdot Z - \frac{Y_T}{1 - X - i \cdot Z} \pm \left[\frac{Y_T^4}{4 \cdot (1 - X - i \cdot Z)^2} \right]^{0.5}}$$

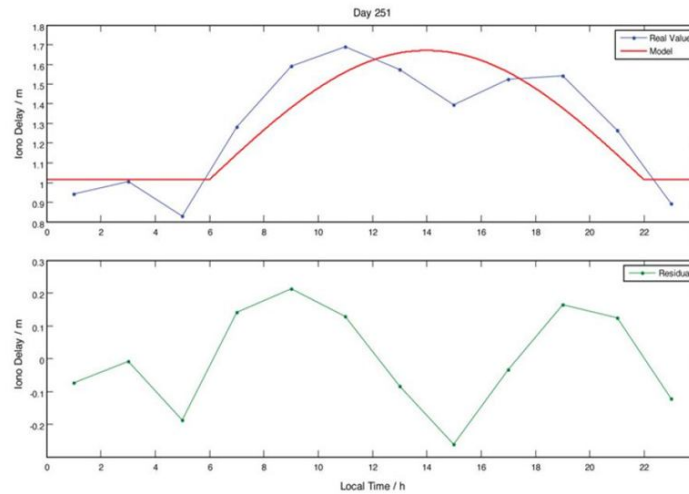
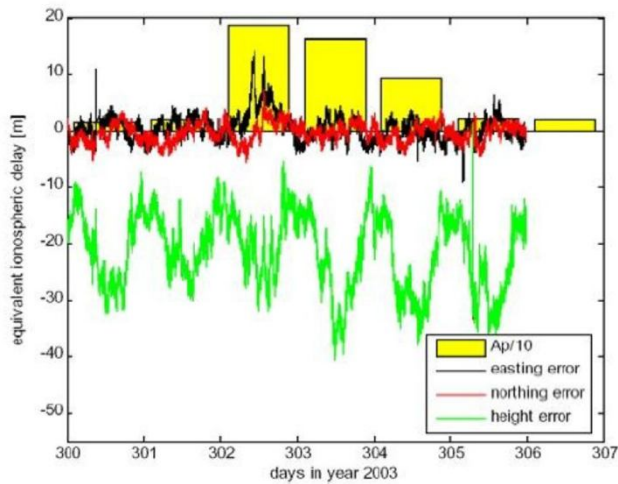
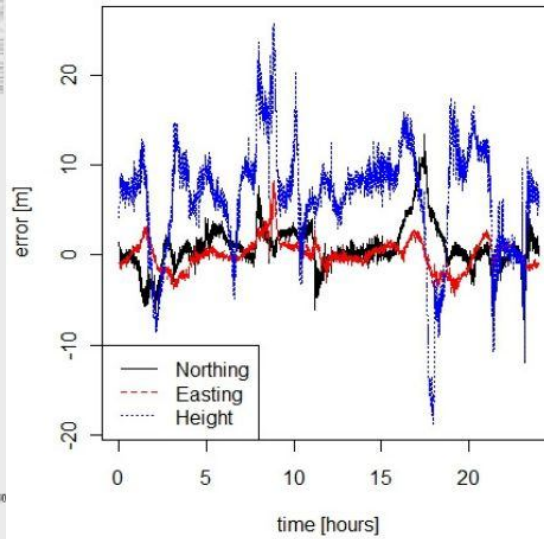
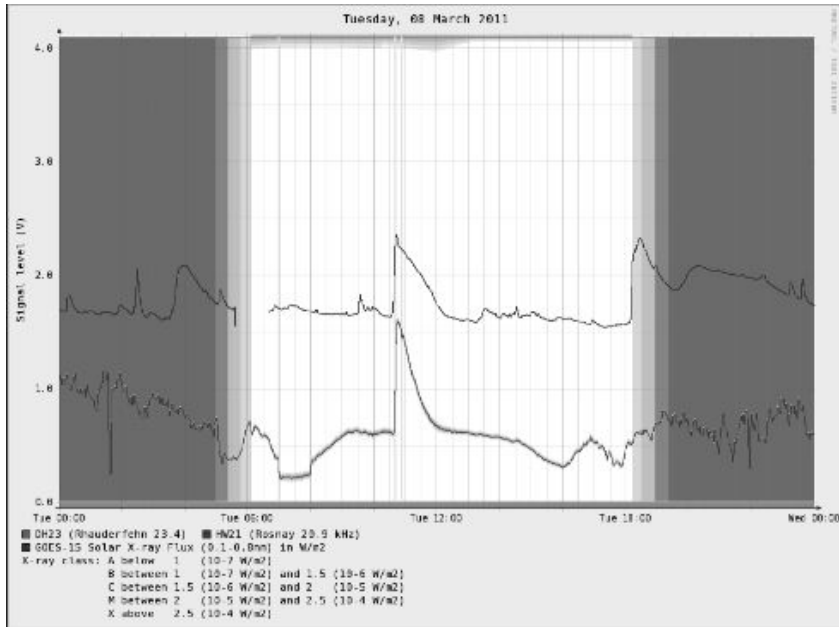
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- Technology Resilience Scheme against space weather effects



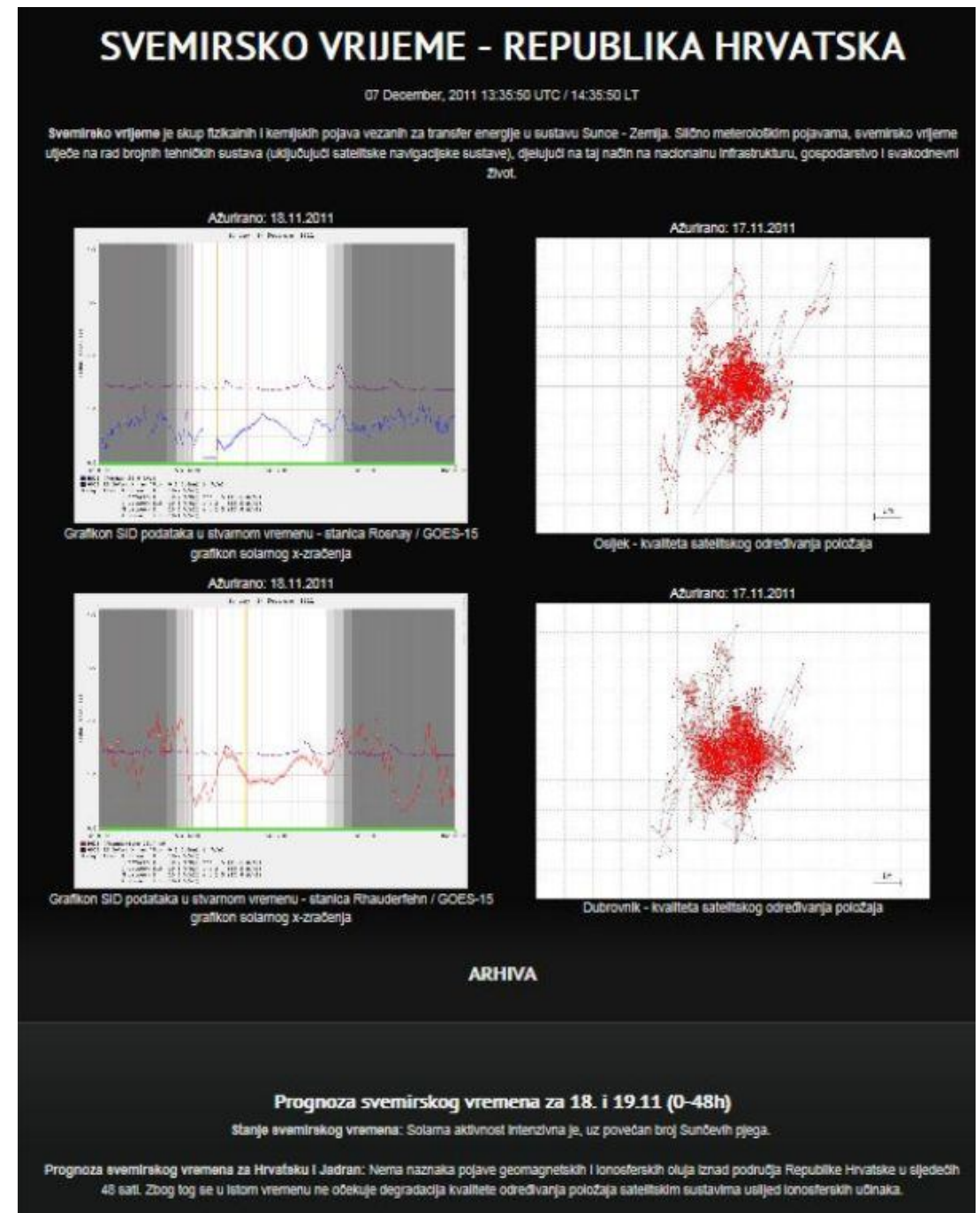
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• Discussion



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- Discussion
- www.ionosphere.hr



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- Conclusion
- Space weather affects growing number of technology and socio-economic systems and services, thus affecting national infrastructure.
- Technology Resilience Scheme proposed to contend the space weather, geomagnetic and ionospheric effects on technology systems, developing the resilience against space weather.
- Future work: organised and synchronised knowledge and skills development on the international basis, establishment of research and education facilities (Baška, Krk Island, Croatia).



**THANK YOU FOR YOUR
ATTENTION !**

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