

HVSIA 2009

# HVSIA INSTRUMENTATION FEEDBACK

3 to 5 November 2009



100  
1908 - 2008



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# HVSIA instrumentation feedback

- Background
- Current status
- Recommendations



# Background

- HVZIA matrix information
- Summary of instrumentation used
  - Should PSPA, LFWD, thermal imager , FWD etc be added?
  - WIM added – CSIR and UC - Massload ML20 Weigh-in-motion system under load
  - UC
    - CTL ASG-152 Strain Gauge
    - Geokon 3500 Pressure Cell
    - Decagon 5TE Moisture / Temperature / Electrical conductivity
  - CSIR
    - Decagon 5TE – not for HVS as yet



## HVSIA Instrumentation Matrix

More information on the Instrumentation and or Systems per Institution/Organisation can be obtained by clicking on the relevant coloured block below.

PARAMETER	PROGRAMME					
	RSA/ Gautrans	Florida	Caltrans	Finland/ Sweden	CoE-ERDC	CoE-ERDC -Hanover
<b>Structural</b>						
Permanent deformation						
- Surface	R	F	C	V		
- In-depth	R		C	V		
Elastic deflection						
- Surface	R		C			
- In-depth	R		C	V		
Strain		F		V		
Stress		F		V		
Stiffness	R					
<b>Environmental</b>						
Temperature	R	F	C	V		

## Current status

- Most changes since start
- Most instrumentation appear to be “static”?
  - (comment added before UC updates)
- Reasons
  - **Positive**
    - Good data from current instrumentation
    - Compatibility with old data
    - Compatibility with existing models
  - **Negative**
    - Other priorities?
    - Stagnation?
    - Lack of staff (civil/electronic staff)?



# Recommendations

- Evaluate reasons and make a conscious decision on future of instruments
- Keep scanning new developments
- Possible new instrumentation
  - Horizontal  $\sigma$  and  $\varepsilon$  - ???? What is correct?
  - ?
- Rianie Castelyn keeps updating when new instrumentation is used

