

## Testing an Enclosure for the Safe Recovery of Damaged Electronics: Work for UK AAIB

May 2018

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HSL: HSE's Health and Safety Laboratory



## HSL's Battery Testing Facility



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## Testing an Enclosure for AAIB



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## Test Plan

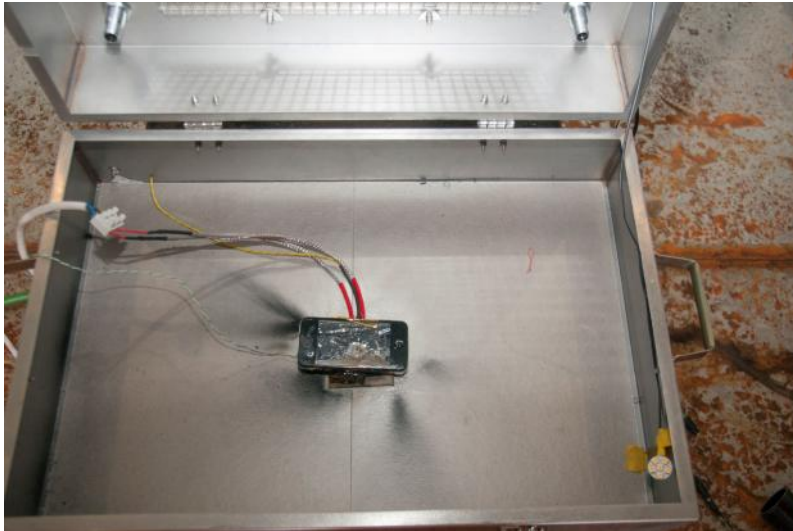


- Test 1- iPhone 4S (1.4 Ah)
- Test 2- iPad 3 (11.5 Ah)
- Test 3- Single 18650 cell (2.9 Ah)
- Test 4- Laptop pack- multiple 18650 cells
- Test 5- Tablet pack- multiple pouch

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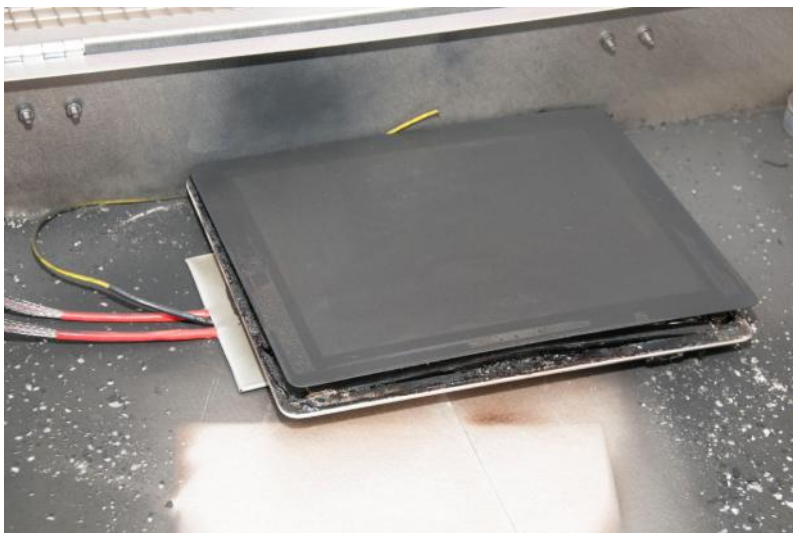
### Test 1- iPhone - after



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### Test 2- iPad - after



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Test 3- Single 18650



25-08-2015 Tue 15:17:53



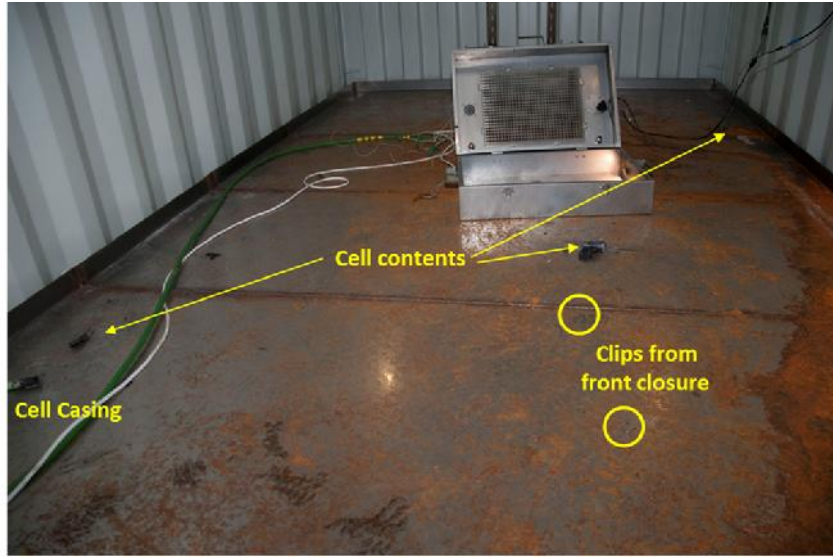
Test 3- Single 18650



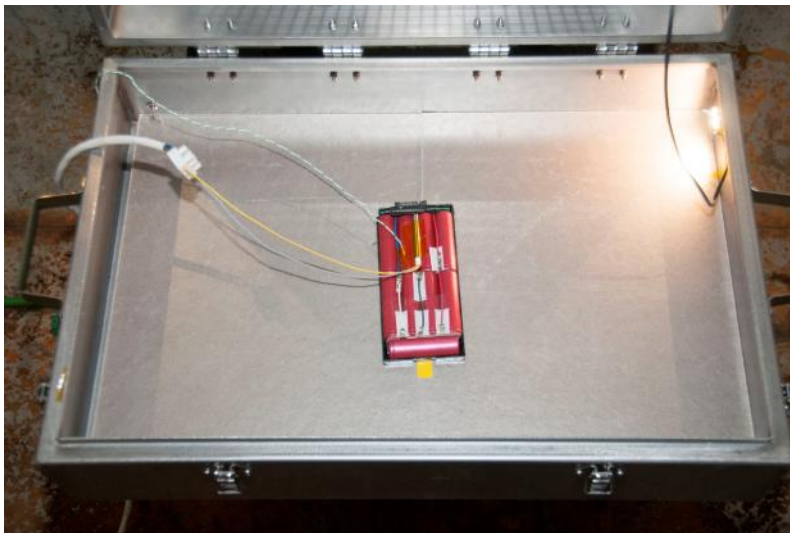
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### Test 3- Single 18650



### Test 4- 18650 Pack- before



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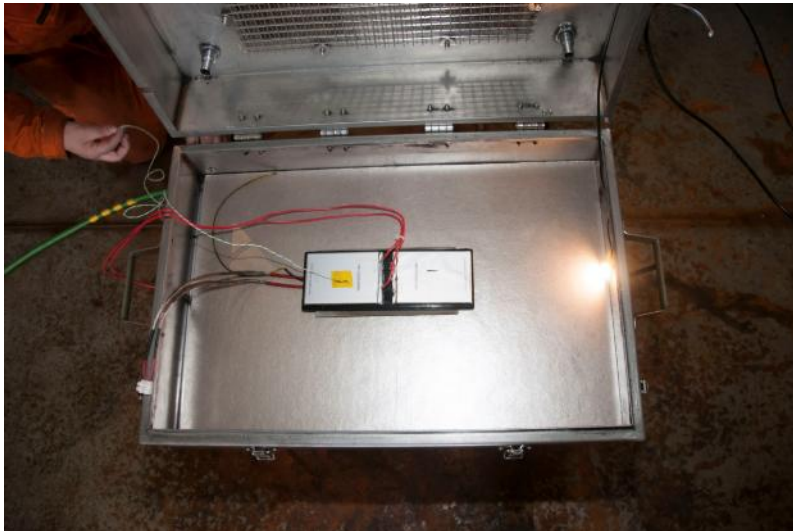
### Test 4- 18650 Pack- after



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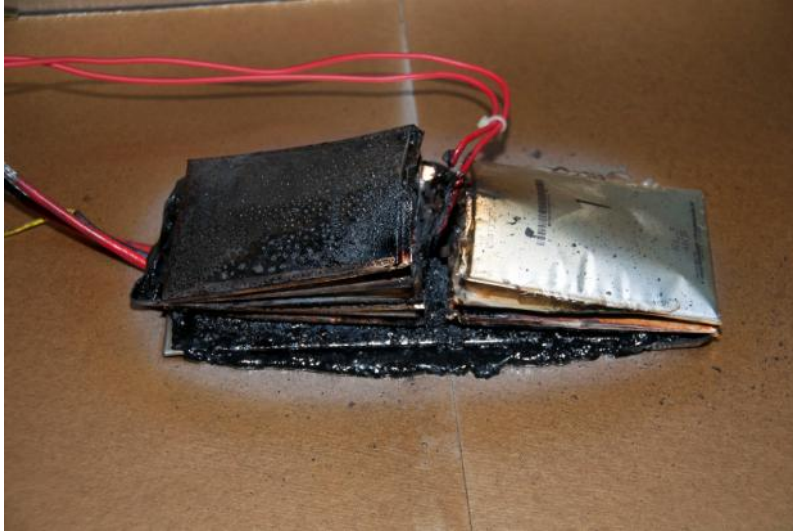
### Test 5- Tablet pouch pack- before



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## Test 5- Tablet pouch pack- after



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## Conclusions



- Enclosure could be necessary (!)
- Enclosure is basically sound
- Combustion gases produced
- Residues need decontamination

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**Thanks to**



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Rebecca Lisseman  
Trystan Lang  
HSE-SD (HSL)**

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