

# Put Down the Pen and Pick up the Tablet:

## Using App based Auditing and Data Collection to Increase Safety Awareness and Accountability

### Background

Traditionally Safety Professionals and Scientists head into the field with a checklist and a pen to observe and collect data. We follow our checklists and generate piles of paper to be entered into some usable organizational format at a later date.

Safety Researchers have long encouraged organizations to make more frequent audits and regular observations of people's behavior with the idea that these efforts will result in earlier detection and correction of situations that could result in accidents, but we are faced with the challenge that vessels operating at sea are not going to do a lot of data entry and getting piles of paper delivered to our desks months AFTER a hazard is identified or an observation is made minimizes the ability to detect issues and trends and respond in a timely fashion.

## How Can We Streamline Data Collection?

As access to technology expands and the world gets smaller and smaller, how might we all be able to use Mobile Devices to conduct Audits, Collect Data, Provide Training, and Increase Efficiency?

What IF there was a way for vessel operators or researchers to conduct audits at sea or in remote locations using a mobile device? What IF there were a way that each Audit could be uploaded into a cloud based system that could not only store the data, but could also help track action items AND track who is... and is not... conducting their Audits?

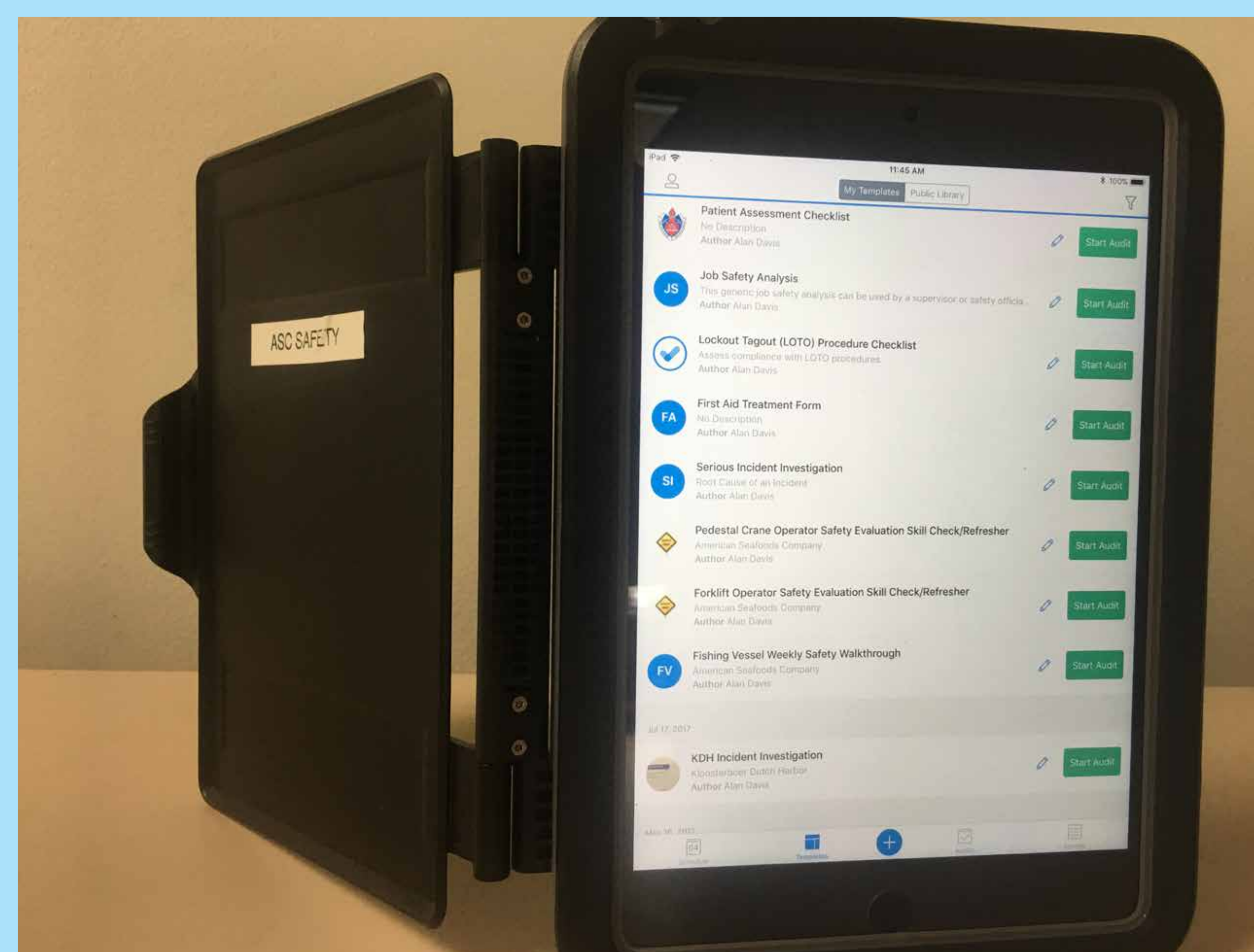
In some cases, the process has evolved into a much more intricate system that ties in leading and lagging indicators, injury reporting, risk assessment levels, position, and annual inspection requirements, as well as flagging repeat high risk items.

Such systems exist in "normal industry" today and several commercial fishing companies operating in Alaska have set out to take their Safety Audits out of the file box and into the cloud...

## Evaluation of Different Devices

Our evaluation of different systems was somewhat truncated. As our organization had already standardized on Apple Devices we immediately gravitated toward iPads, then iPad Mini's as the iPads were found to be a bit big for carrying around onboard vessels during our evaluation phase. An additional advantage of the Apple Family of devices was that there exist so many Safety & Medical Apps that could be added to the devices in order to give them even greater utility in remote settings.

Each organization should perhaps do a more in-depth review of the various devices available, as different IT Support infrastructures may dictate the use of other devices.



Apple iPad Mini with Pelican Vault Tablet Case & an aftermarket screen cover (NOT Waterproof)

## Evaluation of Different Applications/ Systems

Our selection process began with attempting to determine what Mobile Auditing Applications existed. The first IMMEDIATE criteria for elimination was the necessity that the Auditing Application be able to Operate and Store data ONBOARD the wireless device regardless of connectivity. A surprising number of Auditing applications do no function absent of Wi-Fi or Cellular connectivity and this removed a large percentage of the competition from the evaluation.

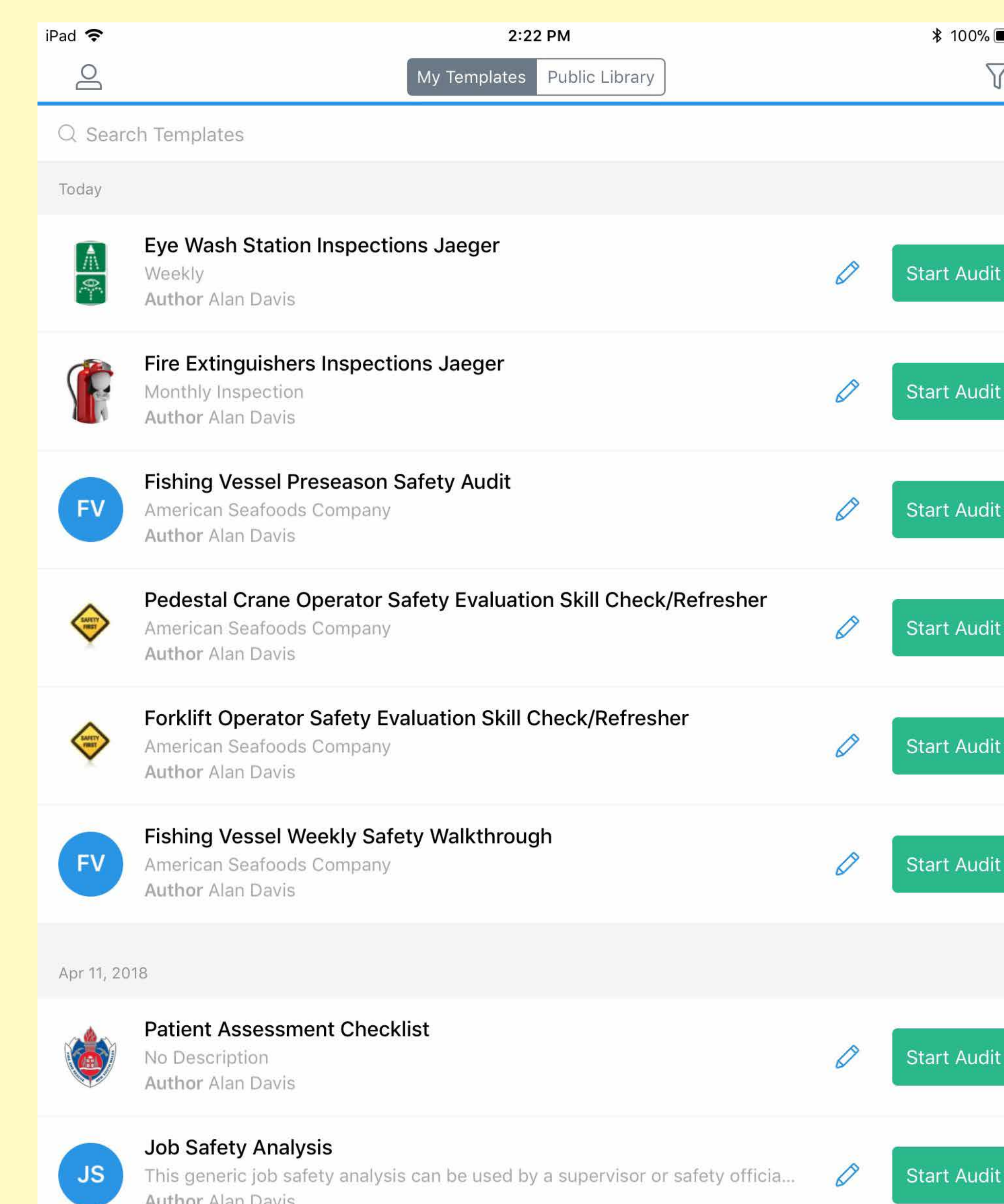
Once we narrowed down the field of Safety Auditing Applications we looked at:

Available Templates (Library)  
Ease of Template Creation  
Data Management and Dashboard creation  
Potential for System Growth

There have been numerous systems developed since our review process and anyone embarking on this effort needs to do their own needs evaluation, but for our needs we selected iAuditor by Safety Culture.

## Audit Template Development

Like most processes, first we began with the idea of converting what we were doing on PAPER into an Audit Template. In this process we discovered redundancies and created some additional streamlined templates for more frequent use. We also discovered that as both Safety Culture/ iAuditor and our own processes advanced, there was additional depth and dimension that could be added to our templates.



Examples of some of the Templates we have in use:

## Template Details

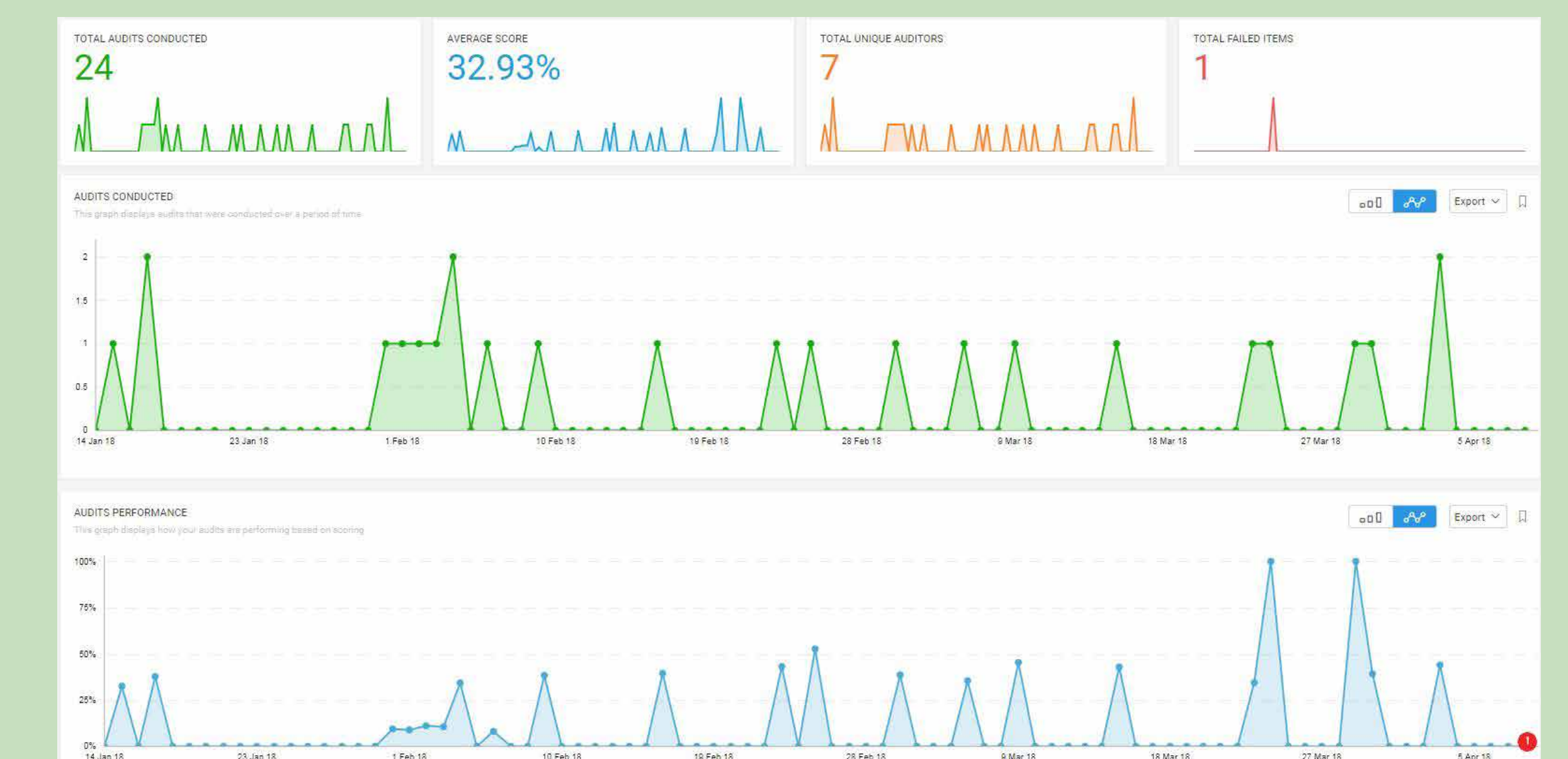
There is an amazing array of data collection utilities built into the iAuditor system, some of which we have only begun to evaluate. In addition to the normal; Date, Time, Location, Persons Involved etc. that one would generally expect, there are "SMART" features that initiate additional actions and data collection for Non-conformances. There is also a way to assign action items to others via email notification and to track trends over time.

## Lesson Learned

Once a Template is developed, it is important to make sure it is Administratively Secured so that a USER cannot change the Template Structure without going through the Administrator because changes can be hard to reverse and may be picked up and used by others in your network. That said, USERS can be given access to create CUSTOM Templates tailored for their own uses and some of our vessels have done so.

## Outputs

While we are in the early stages of implementing this program and have some internal IT challenges to overcome, we are extremely optimistic that this method of Data Collection and Analytics is the wave of the future and full implementation will help us improve our efforts to IDENTIFY and ELIMINATE Safety & Health Issues earlier and thereby prevent negative outcomes.



iAuditor dashboard

### References

iAuditor Website by Safety Culture <https://safetyculture.com>  
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