CSafe
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# Reliance Depends on Preventative Maintenance

May 2014

White Paper

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## Reliable End-to-End Temperature Performance

No getting away from it, some things in life are now much easier than they used to be. When I bought my first car, it was all about speed, color and yes, how many girls it would attract. How much time and money I would have to spend to keep it roadworthy, and it was plenty, came as a secondary consideration to all of these.

When choosing a car, I still go for color and speed (reluctantly having to drop the 'girls' part if I want to stay married!) and like many of you, I have a maintenance package included in my lease contract. If it needs attention, I take it back to the dealer. I have come to rely on the ease with which the car can be back on the road and/or a temporary replacement being arranged. Quick, simple and convenient with no dirty hands.

In the world of temperature-controlled transportation, the word 'rely' has also come to mean a great deal in terms of end-to-end temperature assurance. In our teaching classes at Exelsius, we often update the slide that shows how many airlines have now launched a specific healthcare/ pharmaceutical service using active containers. With the recent addition of Saudia Cargo and Qatar Airways, it is approaching 35 airlines whom shippers and manufacturers now rely on for the correct temperature management in an ever more complex international transportation environment.


The CSafe RKN

But just as with cars, reliance depends on maintenance. And for the manufacturers of these active aircraft containers, it means a scheduled maintenance program. The fact that these active containers are 'aircraft equipment' and therefore, subject to the regulatory requirements of airworthiness inspection authorities, makes it that much more complex, particularly when we know that aircraft safety is a prime concern along with the thermal performance of the container.

So how do companies, such as CSafe, try to ensure that we can continuously rely upon the performance of these complex containers that both heat and cool without the use of external phase change materials?

To maintain the highest possible performance and reliability, the CSafe RKN is routinely returned to one of their thirty factory-trained and approved global service centers for scheduled maintenance and validation activities. An asset tracking system that diverts containers to the most appropriate center, dictated by date and/or operational hours usage, helps manage the process. Maintenance is carried out according to the containers' personalized records and Component Maintenance Manual.

As you might expect, temperature validation is one of the most critical aspects of the maintenance activity and at least every 12 months after release from the factory, the container is vigorously tested in accordance with validation

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procedures. The aim is to verify the internal temperature at multiple positions within the cargo compartment against previously calibrated sources to ensure performance consistent with the date of manufacture.

The CSafe RKN temperature data logging capability, which can retain individual shipment data throughout the transportation journey, is similarly tested for accuracy against calibrated source data. This validation testing has become an essential requirement for the pharmaceutical users of the container particularly as transport qualification has become a firm part of GDP regulatory requirements. It makes practical sense to be assured that your valuable and temperature-sensitive shipment is inside a container that has been regularly validated for temperature accuracy.

Another key check is the batteries. Though the batteries used by CSafe are designed with a minimum service life of five years, they are tested annually and replaced much earlier by CSafe as part of their industry leading Preventive Maintenance Rebuild (PMR) Program that occurs every three years. This early replacement ensures optimal performance and reliability.

Before the container can finally be released, a further check is carried out on the functionality of safety items such as the smoke detectors and power distribution systems mandated by the FAA.

Today, we have come to take a high level of reliability for granted. We assume that the temperature-controlled container supplied by our airline or forwarder works properly, not just at the start of the journey, but through all the many and varied handling points. We assume that someone, somewhere has taken efficacy and patient safety with the same level of concern, in terms of equipment maintenance, equivalent to the manufacture of the medicine and its final dispensation.

With at least one company you can!

For more information on the CSafe air cargo container please visit our website **www.CSafeGlobal.com**

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