



# Fire Safe International Ltd

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## Report on Training Course Provided for Sark Fire and Rescue Service

Terms of reference: This report is compiled at the request of Kevin Adams CFO Sark Fire and Rescue Service. The report details the training delivered by FSI Ltd between 01.03.2013 and 04.03.2013. The report makes comments on the perceived strengths and weaknesses of SF&RS and in the case of weaknesses makes recommendations for improvements.

### General Comments on Sark Fire and Rescue Service

- 1.0 Introduction: The purpose of the training course delivered by FSI Ltd was to ensure that SF&RS are carrying out basic fire fighting procedures in a safe manner and to impart some insight into the concepts of "Dynamic and Generic Risk Assessment". This was done by instructing on and supervising pump drills and BA training .Also by delivering a series of lectures on risk, Incident Command and firefighting hazards. Training was also given in the production and application of fire fighting foam. It is stressed that the course should not be considered as a recruits training course or Breathing Apparatus initial course.
- 2.0 . The island having its own legal system is not subject to the Health and Safety at Work Act or the Regulatory Reform Order (Fire Safety); this being so some pragmatic methods of operation have been adopted by SF&RS which would not be acceptable in the UK. For example crew members riding to incidents clinging to tractor towed "Fire trailers" would be deemed an unsafe practice; however on Sark there is no alternative without the investment considerable funds, which are not available. Some suggestions have been made which in our view would if adopted make for a safer working environment.
- 3.0 Fire Risk: The population of the island around 600 persons is similar to a village on the UK mainland; however the population swells to around 1500 in high season. The summer visitors are accommodated in several small to medium sized hotels and guesthouses. There is also self-catering accommodation and some camping. Therefore in summer the Island has "a sleeping risk" more in keeping with a medium sized town than a small village. There is no industry on the island other than small workshops; there is some agricultural risk and a small harbour. Electricity for the island is supplied by a diesel fuelled power station. Bulk diesel is stored onsite at the power station, the diesel storage tanks are protected by a bund. There is one other bulk fuel store located on a farm; the tanks at this store are also protected by a bund.

- 4.0 Other Risks: The Island is cliff lined with many caves. In summer it is not unusual for walkers to become stranded by the rising tide. SF&RS has several personnel experienced in line rescue. Assistance is given to RNLI on request. There are occasional helicopter flights to the Island for which SF&RS provide fire cover. Although there are no cars on the Island there are numerous tractors. There have been no serious RTCs involving tractors. There are also horse drawn passenger vehicles, one of which was involved in a fatal accident in 2012. In our view this type of incident is extremely unlikely to re-occur. *See recommendations*
- 5.0 Personnel and Command Structure: There are currently 18 volunteer firefighters commanded by CFO, DCFO and two junior officers. There is a wide range of experience in terms of time served; some team members having twenty plus years' service, others being new recruits to the service. There is also a wide age range from early twenties to early sixties. All team members are extremely keen and enthusiastic.
- 6.0 Operational Experience: Because of the small number of incidents occurring on the island it is not really possible for any of the team (even the long serving members) to build up any meaningful reservoir of operational experience. However the Officers have been very proactive in analysing and learning from the small number of incidents they have attended. This in effect is similar to how fulltime fire officers on mainland UK learn from their peers; unusual and challenging incidents are debriefed formally and information is disseminated. Incidents are also debriefed informally at all levels, often over a cup of tea. A method of overcoming this lack of operational experience is to adopt "Standard Incident Procedures" (SIPs) *see recommendations*.
- 7.0 Fitness: Compared with a similar cross section of the UK population SF&RS team are probably fitter; this being due to outdoor life style and lack of motorised transport. However it should be borne in mind that firefighting can be an extremely physical activity and as such the senior team members should be shielded from the more arduous tasks.
- 8.0 Training: The team train once per month for a period not exceeding 3 hrs. Most of the techniques employed have been picked up by the senior members over a number of years. Previously a former professional firefighter was part of the team and he was able to pass on the skills he acquired during his career. A training manual was produced which is very similar to the 1985 addition of the Fire Service Drill Book. Since the retirement of the former firefighter the training has not advanced and the learned drills are repeated. The leadership team have done their best to stay abreast with developments and should be commended for their efforts. There is a wide range of skills available within the team and they are all "practical" people who because of the isolated nature of the Island have become used to improvisation; this is viewed as a real asset to the team. *See recommendations*.
- 9.0 Leadership: The leadership team are surprisingly knowledgeable for a volunteer crew. It is obvious that the team leaders have gone out of their way to keep themselves informed. They have analysed past incidents to try to improve performance and are proactive in assessing risks. With the very small number of incidents on the Island it is not realistic to expect the leaders to build up any level of experience so it is vital

that they carry out incident pre-planning. *See recommendations*

10.0 Appliances and Equipment: There are 3 “Appliances” all of which are tractor drawn trailers. 2 main pumps and 1 hose layer. There are 6 BA sets and 4 hand held radios. There are numerous branches and pieces of ancillary equipment. There is foam making capability. Fire kit is considered to be adequate, the gloves provide adequate protection but limit dexterity (much better gloves are available, as shown to team members) helmets do not include eye protection. *See recommendations.*

## **11. Details of Practical Training Delivered with Comments and Recommendations.**

- 1. Practical Session 1:** Pump Drills including safety brief, hose running, extending hose lines, replacing burst lengths, out of control branch, practical pump operation, pump faults, fireground signals, branch techniques and gas cooling. **Comments:** *Switched to “Dutch Roll” method of making up 45mm delivery hose. All members showed reasonable competence in hose running and branch work, some weakness in pump operation perhaps caused by over enthusiasm.*
- 2. Practical Session 2** Foam Making: Getting foam making branch to work using inline inductor, safety aspects, techniques in applying finished foam, extinguishing flammable liquid fire (contained and spill)**Comments:** *A very successful session, all personnel demonstrated reasonable competence in producing and delivering foam, successfully and rapidly extinguished flammable liquid fire.*
- 3. Practical Session 3 Breathing Apparatus** Donning and starting up procedures including “Buddy check” and routine tests. Door entry procedures. **Comments:** *clarification of proper start up procedures. It is essential that start up procedures are practised regularly so that team members can carry them out quickly and confidently. Speed is only achievable by regular repetition. Recommend that donning and starting procedures are practised regularly.*
- 4. Practical Session 4** Breathing Apparatus Search and Rescue Drill. The venue for the drill was a medium sized disused property consisting of ground and first floor. All windows to the premises were obscured and the interior filled with a mix of artificial and real smoke. Training mannequins were hidden inside the premises. Crews entered in teams of two and three equipped with hose reel. Search procedures were observed by FSI instructor. Entry Control procedures were implemented and supervised by FSI instructor. **Comments:** *Knowledge of BAEC procedures is sketchy; some team members having little or no knowledge or experience. Door entry procedures are a new concept for the team; after instruction all members were able to demonstrate the correct safe entry procedures. The performance of the teams during the exercise was mixed; this came as no surprise due to the fact that some team members have very little experience of wearing BA. It is understood that the inexperienced team members will not be wearing BA operationally until they have attended more training sessions. It should be recognised that wearing BA can be both arduous and stressful; it requires a good standard of fitness and a high degree of confidence; it is not for everyone, some team members may not wish to be BA wearers. A BA wearer who is not competent or confident is a*

danger to themselves and other team members. Non BA wearers can still be useful team members; after all it is unlikely that more than four wearers would be committed to an incident.

Communications between BA team members was in some cases poor. Good communication between BA team members is essential; the number 1 of the team should almost be carrying out a commentary of what he is doing and of changing conditions. Communications between BA teams and BAECO was via hand held radio; this was a procedure which is new to the team and proved to be problematic. The problems involved using press to talk button on the hand held radios; which is difficult with gloves worn. The other problem is that team members are not used to using radios and do not operate them properly. Users must speak slowly and clearly when passing messages. Before passing a message the sender must ask the receiver for an acknowledgment ( BA team 1 to Entry control are you receiving over!) On receipt of acknowledgment the sender then passes the message. BAECO must be vigilant for messages and should ask for progress reports if no messages are forthcoming. Some team members expressed that they found it an annoyance that the BAECO was pestering them for messages; there should be an understanding from both parties about what is an acceptable frequency for progress reports. We would urge that the team persists with and practises the use of hand held radios for BA teams. The provision of better fire gloves will undoubtedly make communication easier.

**12 Theoretical Training:** The following is a breakdown of the theoretical training sessions delivered by FSI Instructors.

- Safety Brief
- Dynamic Risk Assessment
- Commanding Incidents
- BA Procedures
- Incident Appraisal
- Agricultural Incidents
- Fire Behaviour Backdraft
- Fire and Human Behaviour.
- Q and A Session.

#### Recommendations

1. **Risk Information.** *It is recognised that team members have detailed knowledge of the island and the various risks; however documents recording the layout of the larger hotels and risk information would be of benefit. We therefore recommend that a risk information sheet is produced in conjunction the owners of the larger hotels. This should include plans of the premises, numbers of guests and staff on the premises, out of hours contact information, location of shut for services and any other relevant information.*
2. **Incident Control Sheet.** *An Incident Control Sheet is a simple aide memoir for the Incident Commander. It includes a list of tasks which may need to be dealt with and potential hazards. It*

should also include space for notes on messages sent and for a simple plan. It is recommended that SF&RS adopt this procedure. A simple laminated sheet with headings attached to a clipboard would be sufficient. If possible FSI will send an example of control sheet used by some UK Fire Services.

3. **Specific Incident Procedure (SIPs):** All UK Fire Services adopt a system incident aide memoires (SIPs) The purpose being to assist the Incident Commander in decision making and to ensure that in the sometimes chaotic initial stages of an incident the correct procedures are followed to ensure crew safety and a successful outcome. Examples of SIPs would be Acetylene Incidents or Incidents Involving Asbestos. It is recommended that SF&RS contact Guernsey or Jersey to see if they could adopt some of their SIPs. Alternatively FSI can assist.
4. **Training.** It is our view that the current frequency of training is insufficient to maintain even core skills. We would recommend that the training time be increased to 3hrs fortnightly as a minimum.
5. **Equipment:** Various items of equipment have been acquired over the years; some of which is superfluous to requirements .We recommend that an inventory of equipment is carried out and all non-essential items be removed from the appliances and kept in store. This would free up stowage space on the appliances.
6. **Fire Kit:** We recommend upgrading of fire gloves. The current gloves give adequate protection but severely limit dexterity. Helmet visors have been removed as they were found to be impractical; it is recommended that team members are provided with safety glasses to provide eye protection.
7. **BA Wearers riding trailers whilst wearing sets:** As stated in the introduction it is recognised that Sark is not subject to UK health and safety regulations and as such many practises are carried out which would be unacceptable on the mainland. It is also recognised that SF&RS have to exercise a degree of pragmatism in order to function and the only way to transport the team to an incident is by riding on tractor trailers. It is our view that a Ff wearing a BA set on a moving trailer is much more likely to fall off than a Ff not wearing a BA set. It is recommended that BA sets are stowed on the trailers and not donned by Ffs until arrival at the incident.
8. **Formal Training Core Skills:** It is recognised that SF&RS has a limited budget and that formal training can be very costly, however some degree of specialist training for the CFO and DCFO would be advisable. The Fire Service College run various modules for commanding incidents; we would recommend Station Managers Managing Incidents. This is a one week residential course aimed at Incident Commanders.

### **Conclusion**

***The purpose of the training course was to ensure that the team were capable of performing basic core fire fighting skills safely and competently. FSI instructors are confident that this was achieved in the respect of basic pump drills, hose and branch techniques. Regarding BA there is a very wide range of competency levels from complete novice to confident wearers. The management team are well aware of the various skill levels and will develop the inexperienced team members over a period of time. For the novice wearers the training session was no more than an introduction. Some of the more experienced wearers demonstrated reasonable competency.( See comments made regarding practical session 4)***

*Because of its fairly unique circumstances SF&RS has to stand alone; material support from Guernsey is at best over an hour away which in all but the largest incidents is too late to make a significant contribution. As such the team must prepare to deal with any foreseeable incident which can be viewed as a daunting prospect. SF&RS has some advantages; the team has a range of useful skills, as islanders they are used to being self sufficient and improvising to get the job done, all team members are volunteers and show commitment to the community and there is a core of team members and leaders with some experience.*

*It would not be fair to judge SF&RS team using standards applied to Wholetime or Retained UK Firefighters as the training time, equipment, facilities and instructors available are totally disproportionate; however it is our view that in the circumstances the team perform above expectations. All team members were fully committed to the training delivered and approached the sessions with a positive attitude.*

*FSI instructors would like express our thanks for the hospitality shown to us whilst on Sark*