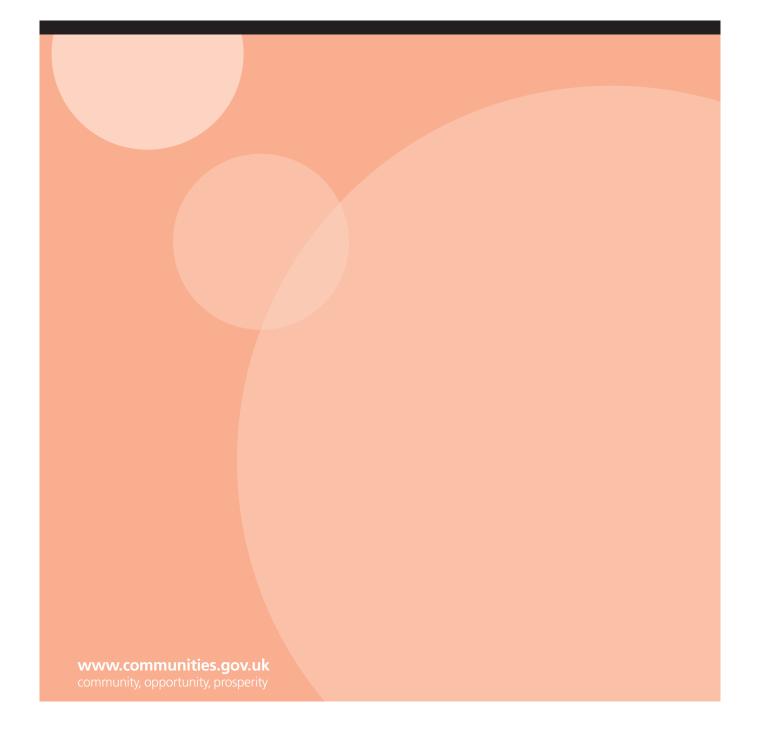


National Firefighter Selection Process National Firefighter Ability (NFA) Tests

Technical Manual





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Please note: This material has been developed specifically for use with the National Firefighter Ability Tests. It is not to be used for any purpose other than that for which it was originally designed.

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Contents

Acknowledgements	4
Section 1 Introduction	5
Section 2 Proper use of the NFA Tests	6
Section 3 Overview of the NFA Tests	7
Section 4 The NFA Working with Numbers Test	9
Section 5 The NFA Understanding Information Test	11
Section 6 The NFA Situational Awareness and Problem Solving Test	13
Section 7 The Development of the NFA Tests	15
Section 8 Technical Information	19
Appendix A Phase I Piloting Sample Statistics	27
Appendix B Phase II Piloting Sample Statistics	31

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Section One

Introduction

- 1.1 This document records the development of the National Firefighter Ability (NFA) Tests and presents important technical information about the tests.
- 1.2 The document is split into the following sections:
 - Proper use of the NFA Tests
 - Overview of the NFA Tests
 - The Development of the NFA Tests
 - The NFA Working with Numbers Test Technical Information
 - The NFA Understanding Information Test Technical Information
 - The NFA Situational Awareness and Problem Solving Test Technical Information.

Section Two

Proper use of the National Firefighter Ability (NFA) Tests

- 2.1 The NFA Tests are for use only as part of the National Firefighter Selection process.

 This document outlines standards concerning the use and availability of the NFA

 Tests and is in line with those guidelines outlined by the British Psychological Society

 (BPS) and current opinion concerning best professional practice in the use and supply of assessment tools.
- 2.2 **Cautionary Note** Assessment tools and their results are for use by appropriately trained and authorised users only. It is the responsibility of authorised users to ensure that appropriate measures are taken to safeguard the security, confidentiality and proper use of the NFA Tests and candidates' assessment results.

Section Three

Overview of the NFA Tests

3.1 Introduction

- 3.1.1 The rationale for the development of the NFA Tests has been guided by the following criteria:
 - The NFA Tests have been designed to assess candidates against a sub-set of the National Firefighter Personal Qualities and Attributes (PQAs) in order to select those people who have the potential to become effective Firefighters
 - While it was important that the NFA Tests had a clear firefighting theme, the content of the tests has been designed so as not to disadvantage those without direct knowledge and experience of the Firefighter role.
 - As with all the assessment tools used as part of the National Firefighter Selection process, the NFA Tests have been developed to promote a positive and accurate image of the role of a Firefighter. As a consequence, the NFA Tests have been designed to ensure that they present a realistic representation of the type of information and situations that they might face as a potential Firefighter.
- 3.1.2 The NFA Tests comprise the following:
 - The NFA Working with Numbers Test
 - The NFA Understanding Information Test
 - The NFA Situational Awareness and Problem Solving Test

3.2 The NFA Tests

- 3.2.1 Working with Numbers Test
 - Candidates are presented with a series of scenarios containing numerical information and multiple-choice questions that require them to perform mathematical calculations. The scenarios reflect the types of information a Firefighter might deal with (e.g. gauges, lengths of hose, community fire safety data).
 - Number of questions: 32
 - Time Limit: 45 minutes.

3.2.2 The NFA Understanding Information Test

 This test assesses ability to understand and interpret the type of written information Firefighters may commonly encounter in their role (e.g. memo, newsletter or safety information). Candidates are presented with scenarios that contain relevant information and asked a number of multiple-choice questions based around that information

Number of questions: 25

Time Limit: 30 minutes.

3.2.3 The NFA Situational Awareness and Problem Solving Test

 Candidates' ability to ensure the safety of themselves and others, and to solve problems is assessed in this test. Information about a particular situation is presented and candidates are asked to choose the best option from the four provided.

• Number of questions: **30 minutes**

• Time Limit: **35.**

3.3 Additional information and administrations

- 3.3.1 More detailed descriptions of the NFA Tests are provided in Sections 4-6. The NFA Tests themselves should be examined to gain a full appreciation of their content.
- 3.3.2 The NFA Tests are administered by hand using paper question booklets and answer sheets. Full instructions covering the administration of the NFA Tests can be found in the separate NFQ and NFA Tests Administration Instructions. Scoring is done by computer through scanning of candidates' answer sheets.

Section Four

The NFA Working with Numbers Test

4.1 Aim

4.1.1 The NFA Working with Numbers Test assesses applicants' ability to understand and work with numerical information of the type that a Firefighter is likely to experience. The test requires candidates to perform combinations of addition, subtraction, multiplication and division as well as estimations of numerical data.

4.2 Composition

- 4.2.1 The test consists of 32 questions and comprises six scenarios each with five or six related questions. The six scenarios cover:
 - reading gauges at a factory fire
 - monitoring fuel supplies
 - using breathing apparatus
 - managing hoses
 - injuries and fire deaths of young people in house fires; and
 - using hoses at a fire.

4.3 Practice Test Booklet

4.3.1 A Practice Booklet has been developed for the NFA tests. The purpose of the NFA Test Practice Booklet is to allow candidates to familiarise themselves with the style of the Working with Numbers Test, the type of information involved in the scenarios and types of questions asked. The Practice Booklet ensures candidates are able to practice the type of questions asked in the test. It also provides useful information for candidates on the testing session itself. The NFA Tests Practice Booklet should be sent to candidates prior to their attendance at the testing session.

4.4 Administration Instructions

4.4.1 Complete Administration Instructions have been provided for the NFA Working with Numbers Test. These include instructions for the beginning of the testing session, standardised instructions that should be read verbatim to administer the test (plus the other NFA Tests and the NFQ) and instructions for closing the testing session.

4.5 Scoring and feedback

4.5.1 Scoring is done by computer through scanning of candidates' answer sheets. An answer key and text for feedback letters have been provided separately.

Section Five

The NFA Understanding Information Test

5.1 Aim

5.1.1 The NFA Understanding Information Test assesses applicants' ability to read and understand written information of the type that a Firefighter is likely to experience. The test involves candidates reading and understanding a variety of written information including fire safety information, memos, newsletters and training course manual extracts and requires candidates to extract the relevant information from these to answer the questions set.

5.2 Composition

- 5.2.1 The test consists of 25 questions and comprises six scenarios each with four or five related questions. The six scenarios cover:
 - ladder safety
 - smoke alarms
 - equality
 - good communication
 - training courses; and
 - water relay communications procedures.

5.3 Practice Test Booklet

5.3.2 A Practice Booklet has been developed for the NFA tests. The purpose of the NFA Test Practice Booklet is to allow candidates to familiarise themselves with the style of the Understanding Information Test, the type of information involved in the scenarios and types of questions asked. The Practice Booklet ensures candidates are able to practice the type of questions asked in the test. It also provides useful information for candidates on the testing session itself. The NFA Tests Practice Booklet should be sent to candidates prior to their attendance at the testing session.

5.4 Administration Instructions

5.4.1 Complete Administration Instructions have been provided for the NFA Understanding Information Test. These include instructions for the beginning of the testing session, standardised instructions that should be read verbatim to administer the test (plus the other NFA Tests and the NFQ) and instructions for closing the testing session.

5.5 Scoring and feedback

5.5.1 Scoring is done by computer through scanning of candidates' answer sheets. An answer key and text for feedback letters have been provided separately.

Section Six

The NFA Situational Awareness and Problem Solving Test

6.1 Aim

6.1.1 The NFA Situational Awareness and Problem Solving Test assesses applicants' ability to ensure the safety of themselves and others and their ability to use information to solve problems. The test requires candidates to read descriptions of situations or scenarios that they are likely to face when working as a Firefighter. They are presented with four alternative answers, and must choose the answer that most closely describes what they would do in that situation.

6.2 Composition

6.2.1 The test consists of 30 questions. Each question describes a situation or scenario that may be faced when working as a Firefighter. The applicant has to consider the safety of themselves and others and use the information provided to decide how to respond. Four alternative answers are provided for each question. No specific knowledge or training as a Firefighter is required to answer the questions correctly.

6.3 Practice Test Booklet

6.3.2 A Practice Booklet has been developed for the NFA tests. The purpose of the NFA Test Practice Booklet is to allow candidates to familiarise themselves with the style of the Situational Awareness and Problem Solving Test, the style of scenario-based questions and the type of scenarios presented in the test. The Practice Booklet ensures candidates are able to practice the type of questions asked in the test. It also provides useful information for candidates on the testing session itself. The NFA Tests Practice Booklet should be sent to candidates prior to their attendance at the testing session.

6.4 Administration Instructions

6.4.1 Complete Administration Instructions have been provided for the NFA Situational Awareness and Problem Solving Test. These include instructions for the beginning of the testing session, standardised instructions that should be read verbatim to administer the test (plus the other NFA Tests and the NFQ) and instructions for closing the testing session.

6.5 Scoring and feedback

6.5.1 Scoring is done by computer through scanning of candidates' answer sheets. An answer key and text for feedback letters have been provided separately.

Section Seven

The Development of the NFA Tests

7.1 Overview of the development process

- 7.1.1 The NFA Tests have undergone a rigorous four stage development procedure designed to ensure that the final psychometric assessments are as fair and effective as possible.
- 7.1.2 Figure 1 presents a general overview of the NFA Tests' development process. More specific details concerning the development of each assessment follow.

Figure 1 – General Overview of the NFA Tests' Development Process

Stage 1: Defining the Concept

- National Firefighter PQAs reviewed to identify those that would be assessed most effectively using psychometric assessment tools
- Specifications for the NFA Tests developed.



Stage 2: Scenario and Question Writing

- Ideas for trial questions and scenarios generated at Firefighter workshops
- Initial sample of trial questions and scenarios written according to strict guidelines to ensure all guestions meet the highest standards of psychometric quality and reflect those situations and challenges likely to be encountered by a Firefighter
- Initial sample of scenario questions reviewed by FRS personnel, Business Psychologists and Equal Opportunity Experts.



Stage 3: Phase I Piloting

- Trial versions of the NFA Tests piloted with a large representative sample of mock candidates of differing gender and ethnic origin (i.e. trainee firefighters, participants from public service courses, etc.)
- Analysis undertaken to identify the most fair, relevant and reliable questions for inclusion in the tests.



Stage 4: Phase II Piloting

- Final versions of the NFA Tests piloted with a representative sample of firefighter candidates from FRSs across the UK
- Analysis undertaken to confirm the effectiveness of the final questions and to develop standardised scoring keys for each test.

7.2 Stage 1: Defining the concept

- 7.2.1 The starting point for the development of the NFA Tests, and the other assessment tools that comprise the NFS process, was the development of the National Firefighter Personal Qualities and Attributes (PQAs). Detailed information concerning the National Firefighter PQA's development process can be found in 'Development of the National Firefighter Selection Tests: Psychological Report (2005)'
- 7.2.2 The PQAs were reviewed to identify those criteria that could be assessed most effectively by psychometric assessment and those criteria that might be more adequately assessed by other methods. This review, therefore, identified the specific PQAs the NFA Tests should assess and confirmed the need to develop a bespoke battery of assessments.
- 7.2.3 The remainder of this section outlines more specific information concerning the procedures followed to develop the NFA Tests.

7.3 Stage 2: Scenario and question writing

- 7.3.1 Initial ideas for questions and scenarios each of the NFA Tests were generated at workshops involving FRS operational personnel, trainers and HR specialists. The purpose of using such personnel was to ensure that the tests included realistic scenarios and information that accurately reflected the demands of the Firefighter role.
- 7.3.2 Using this information a range of scenarios and questions for each test were drafted. The aim at this stage was to develop far more scenarios and questions than were actually needed and to use the two phases of piloting to ensure that only the fairest and more effective questions were selected for the final tests.

- 7.3.3 At this stage of the development process changes were made to the PQAs and the design specification in the light of the Bain Report and White Paper. Additional questions were written, particularly to reflect the assessment of an additional PQA (Openness to Change) and other questions were amended.
- 7.3.4 These tests were then reviewed by external Equal Opportunity experts to ensure that the content was fair to all minority groups. The tests were also reviewed by operational personnel to ensure that the content was a realistic and accurate reflection of the demands of the Firefighter role. As a result of this process the NFA Tests consisted of the following:
 - The NFA Working with Numbers Test nine scenarios and a total of 82 questions
 - The NFA Understanding Information Test 11 scenarios and a total of 94 questions
 - The NFA Situational Awareness and Problem Solving Test a total of 83 questions.

7.4 Stage 3: Phase I Piloting

- 7.4.1 The 'trial' NFA Tests were piloted with mock applicants (e.g. trainee firefighters, participants from public service courses, prospective applicants, etc). Statistics for the Phase I piloting sample can be found in Appendix A. Given the length of each trial test, each was administered in two parts with a short break in between. Candidates were given the following times to complete each test:
 - The NFA Working with Numbers Test 2 x 1 hour
 - The NFA Understanding Information Test –2 x 1 hour
 - The NFA Situational Awareness and Problem Solving Test 2 x 35 minutes.
- 7.4.2 The data from the piloting was analysed to identify the most effective and fair questions for the 'draft' versions of the tests. The data from Phase I Piloting was subjected to classical psychometric item analysis and item response theory (IRT) analysis. Items were eliminated if they did not meet certain criteria, for example where difficulty values were too high or too low, where the discrimination indices were two low (correlations between the item scores and the interim test score), etc. The data was analysed in terms of gender and ethnic group differences, and items that showed significant bias were also eliminated. Those items deemed effective and fair, based on the above analysis, were then reordered in terms of difficulty (first by an examination of scenario means and then within scenarios), and carried forward to the 'draft' versions of the tests.

7.5 Stage 4: Phase II Piloting

- 7.5.1 The NFA Tests in the revised and reduced form were then piloted by FRSs with actual candidates going through Firefighter selection. Performance on the NFA Tests did not form any part of the selection decision. Statistics for the Phase II piloting sample can be found in Appendix B.
- 7.5.2 Due to logistical and time difficulties and not wanting to place an unreasonable burden on actual candidates it was not possible to pilot all of the NFA Tests with a single FRS.
- 7.5.3 Time limits were set for each of the NFA Tests based on an examination of the numbers of candidates completing each test as part of Phase I Piloting. Further item analysis was completed to confirm the structure and internal consistency of the tests and to provide relevant norm data. Items that did not meet the criteria set were removed from the tests.
- 7.5.4 Constraints on the time available to collect data and on the number of FRSs able to participate meant that it was not possible to collect sufficient data from black and minority ethnic and female candidates to allow for meaningful analysis looking specifically at these groups. As a result this analysis will need to be conducted during the early implementation of the NFS process.

Section Eight

Technical Information

8.1 Introduction

- 8.1.1 This section contains the following technical information and data for the NFA Working with Numbers, Understanding Information and Situational Awareness and Problem Solving Test:
 - Summary statistics standardisation sample
 - Norm table
 - Internal reliability
 - Adverse impact
 - Validity.

8.2 Working with Numbers Test Technical Information

8.2.1 Summary statistics – standardisation sample

Sample size	Minimum score	Maximum score	Mean score (raw score)	Standard Deviation (raw score)
127	8	32	23.58	6.74

Please note that the mean scores and standard deviation differences reported below are provided as standard T scores.

Gender	Sample size	Mean score (T score)	Standard Deviation (T score)
Male	108	49.79	10.03
Female	19	51.25	10.03

Ethnic Origin	Sample size	Mean score (T score)	Standard Deviation (T score)
White	110	50.96	9.21
Black and Minority Ethnic	11	43.34	14.08

8.2.2 Working with Numbers Test Norm table

The norm table has been provided so that a candidate's total raw score scale can be converted into a standardised T score. A T score should be used when looking at test performance as it compares a candidate's score against a representative group of test takers and allows the meaningful interpretation of test performance.¹

Raw Score	T Score
1	16.50
2	17.98
3	19.47
4	20.95
5	22.43
6	23.92
7	25.40
8	26.88
9	28.37
10	29.85
11	31.34
12	32.82
13	34.30
14	35.79
15	37.27
16	38.75
17	40.24
18	41.72
19	43.20
20	44.69
21	46.17
22	47.66
23	49.14
24	50.62
25	52.11
26	53.59
27	55.07
28	56.56
29	58.04

Please note that the scoring method used to create these Norm Tables was updated in December 2005 and revised Norm Tables were issued at that time.

Raw Score	T Score
30	59.53
31	61.01
32	62.49

8.2.3 Internal reliability

The internal reliability of the NFA Working with Numbers Test was assessed by the calculation of Cronbach's alpha. The test's level of internal consistency is shown in the table below, together with the standard error of measurement (SEM).

Sample size	Reliability	Sig. (2-tailed)	SEM (T scores)
127	0.90	P<0.05	3.22

An index of 0.7 and above is considered to indicate an acceptable level of consistency for measures of ability. The results therefore confirm that the Working with Numbers Test meets an acceptable level of internal consistency and provides important positive evidence of the test's reliability.

8.2.4 Adverse impact

The number of participants from minority groups was below the threshold required in order to conduct meaningful and reliable analysis. Therefore, levels of adverse impact and mean differences between the test performance of majority and minority groups were not examined.

As soon as sufficient minority data has been collected during the early implementation of the NFS process such analysis will be conducted.

8.2.5 Validity

Further information concerning the Working with Numbers Test's validity will be presented once the data on 'live' Firefighter candidates become available.

8.3 Understanding Information Test Technical Information

8.3.1 Summary statistics – standardisation sample

Sample size	Minimum score	Maximum score	Mean score (raw score)	Standard Deviation (raw score)
165	5	25	16.85	4.80

Please note that the mean scores and standard deviation differences reported below are provided as standard T scores.

Gender	Sample size	Mean score (T score)	Standard Deviation (T score)
Male	141	50.23	9.90
Female	24	48.58	10.73

Ethnic Origin	Sample size	Mean score (T score)	Standard Deviation (T score)
White	133	51.60	9.65
Black and Minority Ethnic	23	42.33	7.81

8.3.2 Understanding Information Test Norm table

The norm table has been provided so that a candidate's total raw score scale can be converted into a standardised T score. A T score should be used when looking at test performance as it compares a candidate's score against a representative group of test takers and allows the meaningful interpretation of test performance.²

Raw Score	T Score
1	16.98
2	19.06
3	21.15
4	23.23
5	25.31
6	27.40
7	29.48
8	31.56
9	33.65
10	35.73
11	37.81
12	39.90
13	41.98
14	44.06
15	46.15
16	48.23
17	50.31

² Please note that the scoring method used to create these Norm Tables was updated in December 2005 and revised Norm Tables were issued at that time.

Raw Score	T Score
18	52.40
19	54.48
20	56.56
21	58.65
22	60.73
23	62.81
24	64.90
25	66.98

8.3.3 Internal reliability

The internal reliability of the NFA Understanding Information Test is shown in the table below together with the standard error of measurement (SEM).

Sample size	Reliability	Sig. (2-tailed)	SEM (T scores)
165	0.80	P<0.05	4.43

An index of 0.7 and above is considered to indicate an acceptable level of consistency for measures of ability. The results therefore confirm that the Understanding Information Test meets an acceptable level of internal consistency and provides important positive evidence of the test's reliability.

8.3.4 Adverse impact

The number of participants from minority groups was below the threshold required in order to conduct meaningful and reliable analysis. Therefore levels of adverse impact and mean differences between the test performance of majority and minority groups were not examined.

As soon as sufficient minority data has been collected during the early implementation of the NFS process such analysis will be conducted.

8.3.5 Validity

Further information concerning the Understanding Information Test's validity will be presented once the data on 'live' Firefighter candidates become available.

8.4 Situational Awareness and Problem Solving Test Technical Information

8.4.1 Summary statistics – standardisation sample

Sample size	Minimum score	Maximum score	Mean score (raw score)	Standard Deviation (raw score)
161	6	28	20.24	4.64

Please note that the mean scores and standard deviation differences reported below are provided as standard T scores.

Gender	Sample size	Mean score (T score)	Standard Deviation (T score)
Male	149	50.06	10.15
Female	12	49.11	8.25

Ethnic Origin	Sample size	Mean score (T score)	Standard Deviation (T score)
White	123	51.47	9.18
Black and Minority Ethnic	25	42.07	11.77

8.4.2 Situational Awareness and Problem Solving Test Norm table

The norm table has been provided so that a candidate's total raw score scale can be converted into a standardised T score. A T score should be used when looking at test performance as it compares a candidate's score against a representative group of test takers and allows the meaningful interpretation of test performance.³

Raw Score	T Score
1	8.53
2	10.69
3	12.84
4	15.00
5	17.16
6	19.31
7	21.47

Please note that the scoring method used to create these Norm Tables was updated in December 2005 and revised Norm Tables were issued at that time. At that time it was recommended that the Situational Awareness and Problem Solving PQAs should be marked separately.

Raw Score	T Score
8	23.62
9	25.78
10	27.93
11	30.09
12	32.24
13	34.40
14	36.55
15	38.71
16	40.86
17	43.02
18	45.17
19	47.33
20	49.48
21	51.64
22	53.79
23	55.95
24	58.10
25	60.26
26	62.41
27	64.57
28	66.72
29	68.88
30	71.03

8.4.3 Internal reliability

The internal reliability of the NFA Situational Awareness and Problem Solving Test is shown in the table below together with the standard error of measurement (SEM).

Sample size	Reliability	Sig. (2-tailed)	SEM (T scores)
161	0.75	P<0.05	4.98

An index of 0.7 and above is considered to indicate an acceptable level of consistency for measures of ability. The results therefore confirm that the Situational Awareness and Problem Solving Test meets an acceptable level of internal consistency and provides important positive evidence of the test's reliability.

8.4.4 Adverse impact

The number of participants from minority groups was below the threshold required in order to conduct meaningful and reliable analysis. Therefore, levels of adverse impact and mean differences between the test performance of majority and minority groups were not examined.

As soon as sufficient minority data has been collected during the early implementation of the NFS process such analysis will be conducted.

8.3.5 Validity

Further information concerning the Situational Awareness and Problem Solving Test's validity will be presented once the data on 'live' Firefighter candidates become available.

Appendix A

Phase I piloting sample statistics

A1. Demographics: Working with Numbers Test

Table 1: Working with Numbers Test/ Brigade			
Brigade	Number of Participants	%	
City of Bristol	50	45.5	
ODPM	1	0.9	
West Midlands Fire & Rescue Service	59	53.6	
Total	110		

Table 2: Working with Numbers Test/Gender			
Gender	Number of Participants	%	
Male	62	56.4	
Female	48	43.6	
Total	110		

Table 3: Working with Numbers Test/Ethnic Origin			
Ethnic Origin	Number of Participants	%	
White	91	85.0	
Black and Minority Ethnic	16	15.0	
Undeclared	3		
Total	110		

Table 4: Working with Numbers Test/Age			
Age	Number of Participants	%	
16-20	84	76.4	
21-25	14	12.7	
26-30	7	6.4	
31-35	4	3.6	
36-40	0	0.0	
41-45	0	0.0	
45+	1	0.9	
Total	110	100.0	

A2 Demographics: Understanding Information Test

Table 6: Understanding Information Test/Brigade		
Brigade	Number of Participants	%
Berkshire	4	1.4
City of Bristol	47	15.9
Greater Manchester	80	27.0
Hampshire	31	10.5
ODPM	19	6.4
Surrey/West Sussex	32	10.8
Tyne & Wear/Cleveland/Durham/Northumberland	83	28.1
Total	296	

Table 7: Understanding Information Test/Gender		
Gender	Number of Participants	%
Male	202	76.2
Female	63	23.8
Undeclared	31	
Total	296	

Table 8: Understanding Information Test/Ethnic Origin		
Ethnic Origin	Number of Participants	%
White	230	89.5
Black and Minority Ethnic	27	10.5
Undeclared	39	
Total	296	

Table 9: Understanding Information Test/Age		
Age	Number of Participants	%
16-20	87	32.8
21-25	85	32.1
26-30	42	15.8
31-35	28	10.6
36-40	16	6.0
41-45	6	2.3
45+	1	0.4
Undeclared	31	
Total	296	

Table 10: Understanding Information Test/Disability		
Disability	Number of Participants	%
Yes	5	1.9
No	259	98.1
Undeclared	32	
Total	296	

A3 Demographics: Situation Awareness and Problem Solving Test

Table 11: Situational Awareness and Problem Solving Test/Brigade		
Brigade	Number of Participants	%
Greater Manchester	80	41.0
Hereford & Worcester	32	16.4
Lancashire	59	30.3
West Midlands Fire & Rescue Service	24	12.3
Total	195	

Table 12: Situational Awareness and Problem Solving Test/Gender		
Gender	Number of Participants	%
Male	146	74.9
Female	49	25.1
Total	195	

Table 13: Situational Awareness and Problem Solving Test/Ethnic Origin		
Ethnic Origin	Number of Participants	%
White	156	83.8
Black and Minority Ethnic	30	16.1
Undeclared	9	
Total	195	

Table 14: Situational Awareness and Problem Solving Test/Age		
Age	Number of Participants	%
16-20	64	32.8
21-25	54	27.7
26-30	37	19.0
31-35	29	14.9
36-40	5	2.6
41-45	5	2.6
45+	1	0.5
Total	195	

Table 15: Situational Awareness and Problem Solving Test/Disability		
Disability	Number of Participants	%
Yes	2	1.0
No	193	99.0
Total	195	

Appendix B

Phase II Piloting Sample Statistics

B1. Demographics: Working with Numbers Test

Table 16: Working with Numbers Test/Brigade		
Brigade	Number of Participants	%
Berkshire	9	7.1
Hampshire	15	11.8
Lincolnshire	26	20.5
South Wales	31	24.4
West Midlands	46	36.2
Total	127	

Table 17: Working with Numbers Test/Gender		
Gender	Number of Participants	%
Male	108	85.0
Female	19	15.0
Total	127	

Table 18: Working with Numbers Test/Ethnic Origin			
Ethnic Origin	Number of Participants	%	
White	110	90.9	
Black and Minority Ethnic	11	9.1	
Undeclared	6		
Total	127		

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Table 19: Working with Numbers Test/Age		
Age	Number of Participants	%
16-20	22	17.5
21-25	48	37.1
26-30	16	12.7
31-35	18	14.3
36-40	14	11.1
41-45	7	5.6
45+	1	0.8
Undeclared	1	
Total	127	

Table 20: Working with Numbers Test/Disability		
Disability	Number of Participants	%
Yes	1	0.8
No	124	99.2
Undeclared	2	
Total	127	

B2 Demographics: Understanding Information Test

Table 21: Understanding Information Test/Brigade		
Brigade	Number of Participants	%
Berkshire	1	0.6
Devon	3	1.8
Hampshire	12	7.3
West Midlands	86	52.1
West Yorkshire	54	32.7
Wiltshire	9	5.5
Total	165	

Table 22: Understanding Information Test/Gender		
Gender	Number of Participants	%
Male	141	85.5
Female	24	14.5
Total	165	

Table 23: Understanding Information Test/Ethnic Origin			
Ethnic Origin	Number of Participants	%	
White	133	85.3	
Black and Minority Ethnic	23	14.7	
Undeclared	9		
Total	165		

Table 24: Understanding Information Test/Age			
Age	Number of Participants	%	
16-20	1	20.0	
21-25	62	37.6	
26-30	46	27.9	
31-35	19	11.5	
36-40	4	2.4	
41-45	1	0.6	
45+	0	0.0	
Undeclared	32		
Total	165		

Table 25: Understanding Information Test/Disability		
Disability	Number of Participants	%
Yes	4	2.5
No	158	97.5
Undeclared	3	
Total	165	

B3 Demographics: Situational Awareness and Problem Solving Test

Table 26: Situational Awareness and Problem Solving Test/Brigade		
Brigade	Number of Participants	%
Berkshire	6	3.7
Staffordshire	29	18
Hampshire	17	10.6
West Midlands	99	61.5
South Yorkshire	10	6.2
Total	161	

Table 27: Situational Awareness and Problem Solving Test/Gender		
Gender	Number of Participants	%
Male	149	92.5
Female	12	7.5
Total	161	

Table 28: Situational Awareness and Problem Solving Test/Ethnic Origin		
Ethnic Origin	Number of Participants	%
White	123	83.1
Black and Minority Ethnic	25	16.9
Undeclared	13	
Total	161	

Table 29: Situational Awareness and Problem Solving Test/Age						
Age	Number of Participants	%				
16-20	26	16.1				
21-25	62	38.5				
26-30	37	23.0				
31-35	24	14.9				
36-40	7	4.3				
41-45	4	2.5				
45+	1	0.6				
Total	161					

Table 30: Situational Awareness and Problem Solving Test/Disability						
Disability	Number of Participants	%				
Yes	1	0.6				
No	155	99.4				
Undeclared	5					
Total	161					

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