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Attorney Docket No. <u>152798</u>					
Please record the attached document.					
Total number of pages including cover sheet, attachments, and document: <u>7</u>					
1. A. Name of conveying parties: 1) Stephen Gerard AYLING 2) Simon Robert WISEMAN 3) Brian Sinclair LOWANS B. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2. A. Name and address of receiving party: QINETIQ LIMITED CODY TECHNOLOGY PARK, IVELY ROAD, FARNBOROUGH, HAMPSHIRE GU14 0LX UNITED KINGDOM B. Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. A. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ B. Execution Date: <u>1) March 29, 2012;</u> <u>2) May 14, 2012; 3) April 4, 2012</u>					
4. A. Patent Application No. <u>13/496,324</u> B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No C. Title of Application: <u>METHODS AND APPARATUS FOR USE IN QUANTUM KEY DISTRIBUTION</u>					
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>James A. Oliff</u> Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787			6. Total number of applications and patents involved: <u>1</u> 7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of <u>\$40.00</u> . 8. Credit any overpayment or charge any underpayment to deposit account number 15-0461.		
9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <u>Meghan J. Carmody</u> James A. Oliff, Registration No. 27,075 Meghan J. Carmody, Registration No. 67,117 </div> <div style="width: 35%; text-align: right;"> Date: <u>May 29, 2012</u> </div> </div>					

CH \$40.00 150461 13496324

P7722/USW**DEED OF ASSIGNMENT OF PATENT APPLICATION****BY AND BETWEEN**

(Inventors) **Stephen Gerard Ayling, Simon Robert Wiseman, Brian Sinclair Lowans**
and
(Assignee) **QINETIQ LIMITED**
(Address) Company No. 3796233, whose Registered Office is at Cody Technology Park, Ively Road, Farnborough, Hampshire GU14 0LX United Kingdom (hereinafter referred to as "the Assignee")

THIS DEED NOW WITNESSES

In accordance with their contract(s) of employment, and to the extent that it may be required to perfect the Assignee's ownership of the invention under the laws of any territory of the world, the undersigned hereby assign(s) to the Assignee the undersigned's entire right, title, and interest throughout the world – including in particular for the United States, its territories, dependencies, and possessions – in the invention identified in the Assignee's records as:

Methods and Apparatus for use in Quantum Key Distribution (Case No. **P7722/USW**)

and in all applications for patents therefor and in all patents which may be granted therefor, for which the undersigned has (have) executed on even date herewith an application for a patent in the United States of America or an International application for a patent designating the United States of America, or if not on even date, then has executed on _____ or has already filed in _____
(Application Serial No. **US/13/496324** filed on 15th March 2012)

The undersigned acknowledge(s) an obligation of assignment of this invention to the Assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

258050

The undersigned hereby grant(s) the firm of:

Oliff & Berridge, 277 South Washington Street,
Suite 500, Alexandria, Virginia 22314
United States of America

the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

EXECUTED AS A DEED by the undersigned on the date(s) opposite the undersigned signature(s).

Signature of Inventor	<u>S. G. Ayling</u>	Date	<u>29th March 2012</u>
	Stephen Gerard Ayling		
Witnessed by	<u>Andrew</u>	Date	<u>29th March 2012</u>
Signature of Inventor	_____	Date	_____
	Simon Robert Wiseman		
Witnessed by	_____	Date	_____
Signature of Inventor	_____	Date	_____
	Brian Sinclair Lowans		
Witnessed by	_____	Date	_____

P7722/USW

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Signature of Inventor _____ Date _____
Stephen Gerard Ayling

Witnessed by _____ Date _____

Signature of Inventor  Date 14th May 2012
Simon Robert Wiseman

Witnessed by SKhang Date 14/5/12

Signature of Inventor Brian Sinclair Lowans Date _____

Witnessed by _____ Date _____

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PATENT
REEL: 028314 FRAME: 0775

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Signature of Inventor

Stephen Gerard Ayling

Date

Witnessed by

Date

Signature of Inventor

Simon Robert Wiseman

Date

Witnessed by

Date

Signature of Inventor

B.S. Lowans
Brian Sinclair Lowans

Date

Witnessed by

Brian Sinclair Lowans

Date

4th April 2012

04/04/12

4 April 2012