

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT						
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT						
<b>CONVEYING PARTY DATA</b>							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>James L. Haws</td> <td>09/13/1999</td> </tr> <tr> <td>Byron Elliott Short Jr.</td> <td>09/10/1999</td> </tr> </tbody> </table>		Name	Execution Date	James L. Haws	09/13/1999	Byron Elliott Short Jr.	09/10/1999
Name	Execution Date						
James L. Haws	09/13/1999						
Byron Elliott Short Jr.	09/10/1999						
<b>RECEIVING PARTY DATA</b>							
<b>Name:</b>	Raytheon Company						
<b>Street Address:</b>	870 Spring Street						
<b>City:</b>	Waltham						
<b>State/Country:</b>	MASSACHUSETTS						
<b>Postal Code:</b>	02451-1449						
<b>PROPERTY NUMBERS Total: 1</b>							
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11428004</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11428004		
Property Type	Number						
Application Number:	11428004						
<b>CORRESPONDENCE DATA</b>							
<b>Fax Number:</b>	(214)661-4559						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
<b>Phone:</b>	214.953.6559						
<b>Email:</b>	glenda.orrantia@bakerbotts.com						
<b>Correspondent Name:</b>	Glenda J. Orrantia						
<b>Address Line 1:</b>	2001 Ross Avenue, 6th Floor						
<b>Address Line 2:</b>	Baker Botts L.L.P						
<b>Address Line 4:</b>	Dallas, TEXAS 75201						
<b>ATTORNEY DOCKET NUMBER:</b>	004578.1571						
<b>NAME OF SUBMITTER:</b>	Glenda J. Orrantia						
<b>Total Attachments: 2</b> source=0045781571Asg#page1.tif source=0045781571Asg#page2.tif							

CH \$40.00 11428004

**ASSIGNMENT**

**WHEREAS**, I, the undersigned inventor (or one of the undersigned joint inventors) of residence as listed, have invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, a Declaration for said application having been executed on the date set forth below; and

**WHEREAS**, Raytheon Company (hereinafter referred to as "Assignee"), a Delaware Corporation, with an address of 141 Spring Street, Lexington, Massachusetts 02421, desires to acquire my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

**NOW, THEREFORE**, for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I assign to Assignee, all right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all divisions, reissues, continuations, continuations-in-part and extensions thereof; and I authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as my interest is concerned, to Assignee.

I also assign to Assignee, all right, title and interest in and to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world, including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

I will communicate to Assignee any facts known to me respecting any improvements; and, at the expense of Assignee, I will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said invention in all countries.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

Title of Invention: METHOD AND APPARATUS FOR COOLING WITH  
A PHASE CHANGE MATERIAL AND HEAT PIPES

Signature of Inventor: James L. Haws  
Inventor's Name: James L. Haws

Residence (City, County, State) 15354 Plum Lane  
McKinney, Collin County,  
Texas 75070

Date: 9/13/99

Date Declaration Executed: 9/13/99

---

---

Signature of Inventor: Byron Elliott Short, Jr.  
Inventor's Name: Byron Elliott Short, Jr.

Residence (City, County, State) 1300 Red Oak Trail  
Fairview, Collin County,  
Texas 75069

Date: 9/10/99

Date Declaration Executed: 9/10/99

---

---