Far Ultraviolet Spectroscopic Explorer (FUSE)



Song Book

A Collection of FUSE Songs and Related Memorabilia

Edited and compiled by Bill Blair

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The Johns Hopkins University

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Preface

Over the years, we have had a lot of fun re-writing song lyrics for various occasions: Launch anniversaries, going-away parties, etc. I have received numerous requests to provide a compendium of some of the more famous (or infamous!) compositions from the FUSE era.

Herewith is what I have managed to cobble together from old notes and e-mails (within the limited time available for archival research). I hope you enjoy this stroll down memory lane.

If you have contributions to add, let me know. Who knows? Maybe we will issue a "Rev. A" in the future!



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Launch Day*

And now, the launch is near. At last we face the final countdown. At times, our PI's face, it seems He's worn a permanent frown. The SIMs are finally through. We've even tested for Y2K. And now, at last it's here. THANK GOD IT'S LAUNCH DAY!

Delays, we've had a few. But then again, too few to mention. It's time to send our FUSE Into a higher, new dimension! To look at UV light, Not in an old, but in a new way. And now--it's finally here. THANK GOD IT'S LAUNCH DAY!

For what is a mission? What have we got? Without a launch, it's all for naught. Let's see some fire in the tail, And watch that Delta rocket sail! We've worked for years... Now let's hear cheers! THANK GOD IT'S LAUNCH DAY!

(FUSE Launch, 11:44 a.m. EDT June 24, 1999)

*To the tune of *My Way*, with apologies to Frank Sinatra. Written (and performed!) by Bill Blair at JHU "Let's Do Launch" celebration, 6/24/99.

Moos the Knife*

Oh the FUSE looks...with it's eyes dear. And we made them...shiny bright. But they're not quite...like your eyes dear, 'Cause they look at...UV light.

Oh the count down...went so smooth, dear, Through the day and...through the night. Then there came a...little boat, dear, And it gave us...quite a fright.

Oh, our FUSE sat...on the launch pad. And the sky was...oh so bright. Then they lit that...Delta rocket, And our FUSE went...out of sight!

Back in Bal-ti-more, Folks were cheering, As they stared in...disbelief. And the folks down...at the Cape, dear, Gave a huge sigh...of relief.

Now our FUSE (FUSE FUSE)...is in orbit, And the checkout's...going down. Now it's time to...get to work, dear, Now that Warren's... Now that Warren's back in town!!

(Look out you guys, Warren's back!)

* To the tune of *Mack the Knife*, with apologies to Bobby Darin.

[Sung July 1999, at the Post-Launch Maryland Science Center celebration.]

It's Been a Hard First Year *

It's been a hard first year . It's been like walkin' in a fog. It's been a hard first year, We've all been workin' like a dog. But when the uplink is through, By our MOT crew, You know I feel OK.

You know we planned all day To get some data for the team. But it's worth it just to hear them say, "The data's looking like a dream!" And when my e-mail I sort For all those S-DOG reports, You know I feel alright.

> When we're hosed, When we are in abort-obs, "Lost in space" Takes care of all of our prob—lems, Yeah!

It's been a hard first year, But now we're feelin' pretty fine. Because we've learned how to Get all four channels re-aligned. And now we're having some fun Observing deuterium. You know I feel alright!

*To the tune of *Hard Days Night,* with apologies to the Beatles.

[Sung at the First Anniversary party, June 24, 2000.]

Deck the Walls*

Deck the walls with plots of data, Fa-la-la-la La-la-la-la! Get me one more calibrator! Fa-la-la-la-la La-la-la-la! Write the MOCR's, that's our jobs, Fa-la-la-la-la La-la-la-la! Try to avoid abort-obs. Fa-la-la-la-la La-la-la-la!

Fast away the old year passes, Fa-la-la-la-la La-la-la! While we sit here on our...chairs, Fa-la-la-la-la La-la-la-la! Plot the data, have a field day, Fa-la-la-la-la La-la-la-la! Writing papers for the Ap-J. Fa-la-la-la-la La-la-la-la!

Bill O. says he's had enough, Fa-la-la-la-la La-la-la-la! Of flaky gyros and that stuff. Fa-la-la-la-la La-la-la-la! Goddard lured him away, Fa-la-la-la-la La-la-la-la! To be a branch chief, so they say. Fa-la-la-la-la La-la-la-la!

Now it's time to say goodbye, Fa-la-la-la-la La-la-la-la! He is mud into your eye. Fa-la-la-la-la La-la-la-la! Thanks from all your Sci-Ops crew. Fa-la-la-la-la La-la-la-la! When we're "hosed" we'll think of you! Fa-la-la-la-la La-la-la-la!

*To the tune of *Deck the Halls*. [Sung on Dec. 13, 2000, at Bill Oegerle's going away party.]

'Twas a Year into SciOps*

'Twas a Year into SciOps, and all through the Center The FUSErs were typing their e-mail to enter. The MOCRs were flying because of aborts, And we all were reviewing our S-DOG reports. But then the time came when we all left our dungeons And came to room 139 for a luncheon. The reason we gathered (I'm sure you all know) Was to say a heartfelt adios to Bill O.

It was six years ago when he came on the scene And he almost immediately had a bad dream. "The mission is cancelled! We won't pay your rent Unless you can cut it by 60%!" So cut it they did, and they sent in a letter, "It's not only faster, but cheaper and better! We'll develop and build it ourselves for a fee, And we'll operate it from our own SCC." Then what to their wondering eyes should appear, But an acceptance letter! They let out a cheer!

But the joy was short lived; they got NASA to buy it, "But now we must actually build it and fly it." It took many months, and too many meetings, But Bill and his crew, after many entreatings, Did build our FUSE and they launched it as well. And now it is orbiting, and life is swell.

So Bill has decided to gather no moss, As he leaves here, NASA's gain is our loss. We wish him the best, and we thank him proFUSEly For all of his efforts, however obtusely, To make FUSE a mission that would be done right. And now, "Merry Christmas to all, and good flight!"

*A Parody of *'Twas the Night Before Christmas*, with apologies to Clement Moore.

The Theme from Ken's Goodbye*

Where do I begin...to tell the story Of a fellow we call Ken? He came to JHU and then he left again, But not before into our hearts he has crept in. Don't go away...

Ken is quite a guy...he told us where to point Our FUSE into the sky! To point our telescope at objects far and near. And with each spectrum all the scientists would cheer, "Hip, Hip, Hooray!"

For five long years...our Ken has labored, So we could all go write some papers, About O-six...or D to H, Or maybe something else!

But now it's ending, and all his stuff He must be sending...across the street. So bittersweet...

Now we say goodbye...we lift our cups and say "Here's mud into your eye!" We let you go on to another time and place, Because quite frankly we can use the office space! Please go away...

*To the tune of *The Theme from Love Story*, with apologies to Henry Mancini.

[Sung September 10, 2001, at Ken Sembach's going away party.]

Imagine*

Imagine there's no gyros. It's easy if you try. Just two wheels to point us, All around the sky. Imagine new flight software Pointing us with ease...Oh, oh!

Imagine operations With no detector faults. Imagine all the journals Filled with FUSE results. Imagine NASA funding Continuing for flow...Oh, oh!

You may say I'm a dreamer, But I'm not the only one. And now today the dream has come true, And the mission will continue on.

*To the tune of *Imagine*, with apologies to John Lennon.

[Circa summer 2002? After Senior Review 2002 results announced?]

I Heard it in the Hallway*

(Pips)

Bum-Bum-bum-Bum...Bum-Bum-bum-Bum, Bum-Bum-bum-Bum...Bum-Bum-bum-Bum.

Oh...I bet you wonder how I knew JB Joyce was leaving JHU. Seven YEARS as program manager, Just a few more hours and he's out the door. I found it a surprise, I must say, When I heard about it back in May. Oh...

> Refrain: I heard it in the hallway. JB Joyce is going a-way. Oh... I heard it in the hallway. Now I just don't know what to say. Honey, honey...

(Pips)

(Don't know what to say now that he'll no longer be program manager any-more...)

As JB heads for retirement, He knows his time with us has been well spent. JB KNOWS just how it feels, To lose a couple of reaction wheels! And he knows how it will be, When we fin-ally complete ZG. Oh... [ZG="zero-gyro" mode]

Refrain

Now I know that a man ain't supposed to cry. So I won't. I'll just say goodbye. Thanking YOU for all you've done for us. Without all of your work this would have been a bust. We're wishing you the best today, As we send you on your way. Oh...

Refrain (Repeat and fade...)

*To the tune of *I Heard it Through the Grapevine*, with apologies to Marvin Gaye. [Sung 6/5/03 at JB Joyce's retirement party.]

As FUSE Goes By*

You must remember this, We plan an MPS, and then we let it fly! We send it from UPRM As FUSE goes by!

Reaction wheels and gyros Have threatened our tomorrows, But carry-on we try. Thank God for TDRS East and West As FUSE goes by.

Comm links and timelines, never out-of-date. FUSE investigators step up to the plate. When they see the data, it makes them salivate! That no one...can deny.

Five years that's been our story, At times the fight's been "gory," But spirits are sky high! We look ahead to more from FUSE As time...goes...by!

*To the tune of *As Time Goes By*, with apologies to Herman Hupfeld. (From *Casablanca*, 1942.)

[Sung for the FUSE 5th Anniversary of Launch Party 6/24/2004]

Amazing Bryce*

Amazing Bryce! He wrote the code That plans our every slew. He writes software all day, and half of every night, While drinking Mountain Dew.

While we're amazed by all he does, Bryce says, "What's all the fuss? A model over here, a GUI over there, And a little C++."

The harder mission planning gets, The more Bryce seems to thrive. Without his help, I truly doubt That FUSE would be alive.

As Bryce concludes his time with FUSE And joins the THEMIS team, We wish him all the best, Good luck, and Godspeed As he chases his Berkeley dream!

*To the tune of *Amazing Grace*.

[Sung 3/31/05 at Bryce Roberts' going away party.]

FUSE's Lament*

Midnight, not a sound from controllers, Have they lost my transmissions? I am flying alone... In the darkness, I slowly spin, reflecting the moon, Let my batteries... charge again!

Memories, all alone in my orbit... I remember my launch day, I was beautiful then. With four wheels I could point where'er they wanted me to, Now my four wheels will not spin.

> First my gyro-scopes stopped working, Then my wheels started swerving. But torquer bars helped me to point at stars, And soon I was observing!

Now, though, my observing is finished. I am nothing but space junk. I am cold and alone. But my data are safely archived down on the earth. Let my spectra...live again!

*To the tune of *Memories* from the musical *Cats,* with apologies to Andrew Lloyd Webber.

[Sung at the "Tribute to FUSE" Celebration, Oct. 23, 2007.]

Songs that never quite got written (or finished):

"Going out of my head...over FUSE"

"At the Pole again..." (to the tune of "On the Road Again" by Willie Nelson)

"Proud FUSEY" (to the tune of Proud Mary) Took a new job in the city, workin' for "the man" [JB?] every night and day. And you know I lost some minutes of sleep but People on the FISE team are happy to give. R-wheels keep on turnin', Proud FUSE it keeps on churnin, Rollin'...Rollin'...Rollin' in the data, etc.)

"Tiny Bubbles" (contributed by Helen Hart) Tiny bubbles, in the tape. Tiny bubbles, tend to migrate. Tiny bubbles, coalesce together, And they form a giant bubble that bridges 'cross the 5-mil gap.

5-mil bubbles, rub a wheel.5-mil bubbles, (Make the) torquers squeal.5-mil bubbles cause a jump in pointing,And the FDC is gonna safe you for that every time.

"SOFIA" (to the tune of "Maria" from West Side Story; intended too late for B-G Andersson's going away party) SOFIA! I just joined a group called SOFIA. So suddenly I found a job that came around for me. (etc.)