

KIC 003967085

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003967085-01	OBS	No	286.497900	134.445214	187.0	1.828	11.0	2.2	11.65	6869	17.52	161.86
003967085-02	OBS	No	0.934856	132.177801	34.0	3.814	8.6	9.2	11.65	6869	7.92	0.00
003967085-05	OBS	No	192.801450	229.678310	332.4	9.068	9.5	7.2	11.65	6869	23.16	274.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967085-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967085-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003967085-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

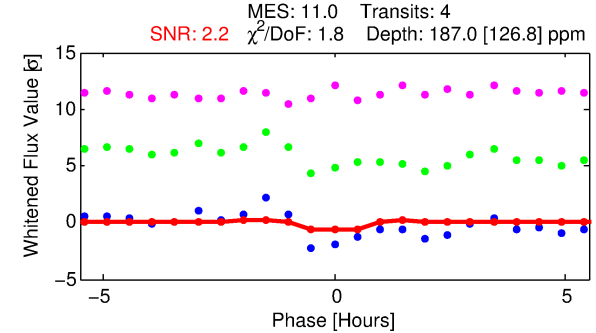
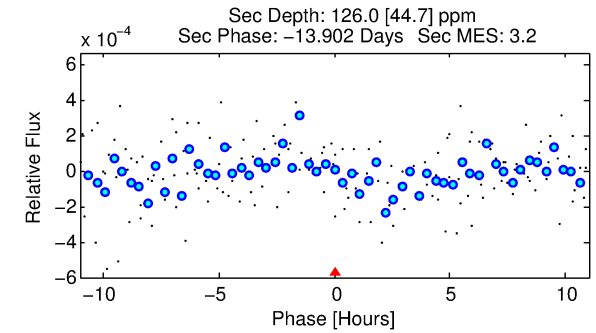
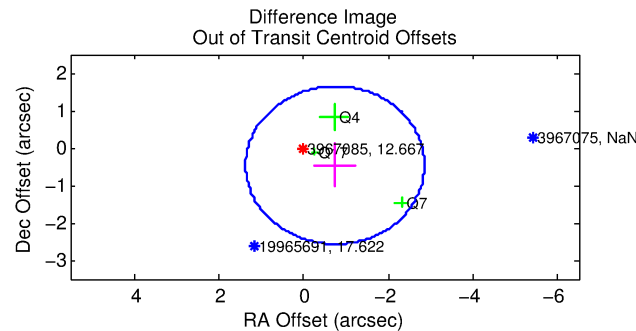
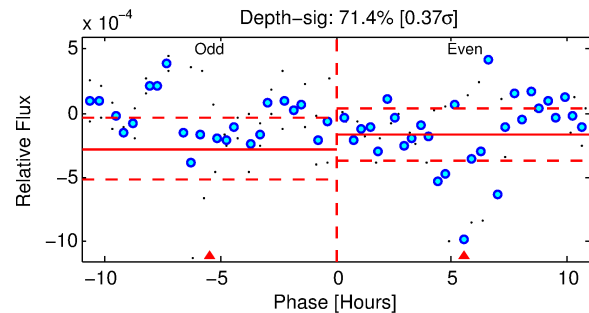
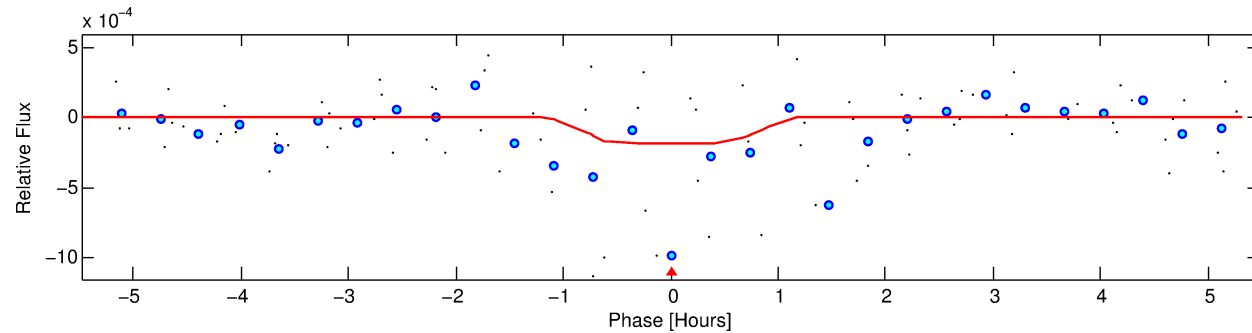
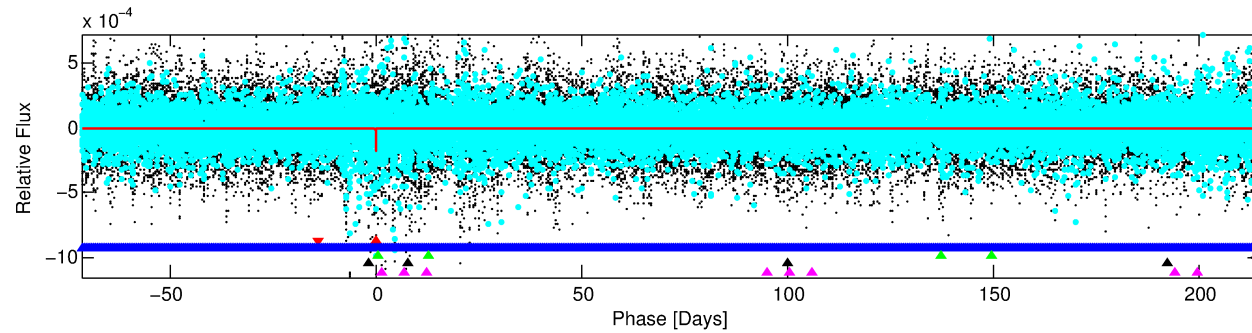
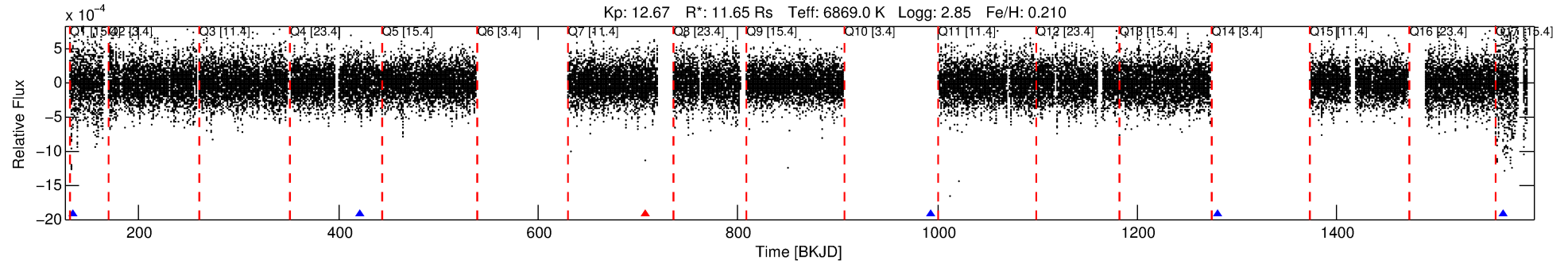
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967085-01

No Significant Match Found

DV One-Page Summary

KIC: 3967085 Candidate: 1 of 5 Period: 286.498 d



DV Fit Results:

Period = 286.49790 [0.00721] d
Epoch = 134.4452 [0.0156] BKJD
Rp/R* = 0.0138 [0.1148]
a/R* = 777.12 [36656.56]
b = 0.78 [24.13]
Seff = 161.86 [194.76]
Teq = 910 [274] K
Rp = 17.52 [146.41] Re
a = 1.2930 [0.9136] AU
Ag = 377.74 [6312.95] [0.06 σ]
Teffp = 6199 [25837] K [0.20 σ]

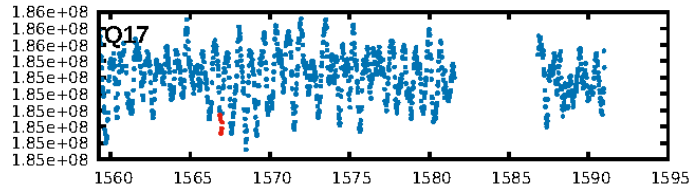
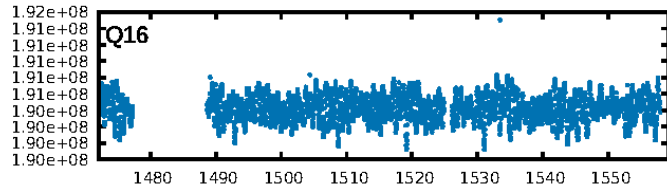
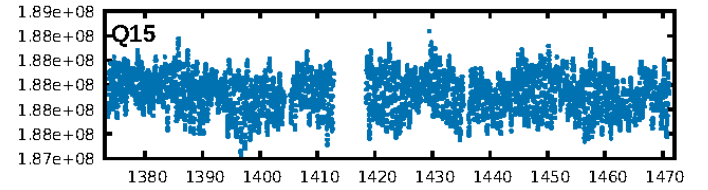
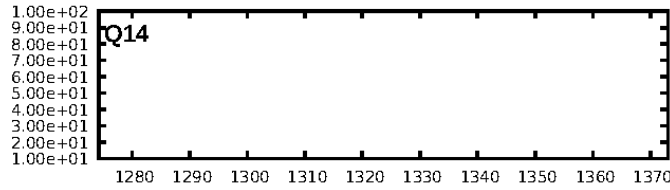
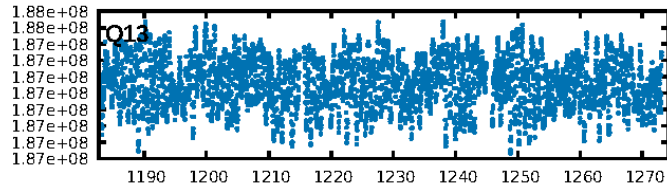
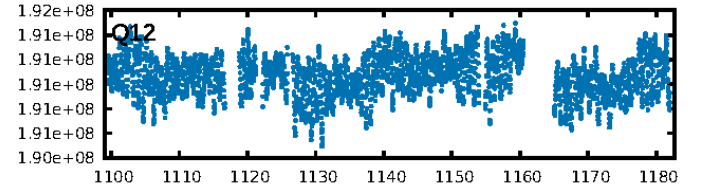
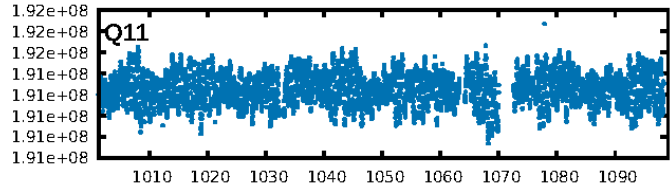
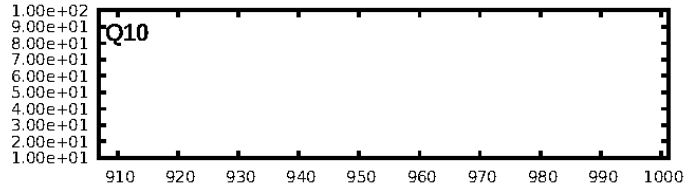
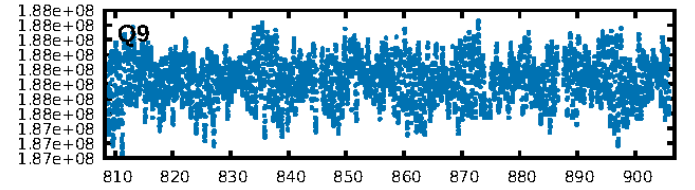
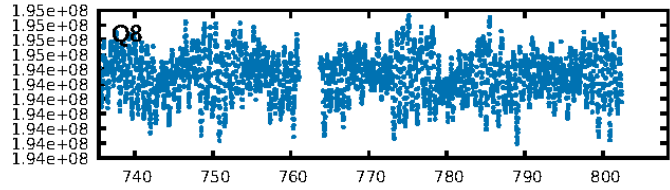
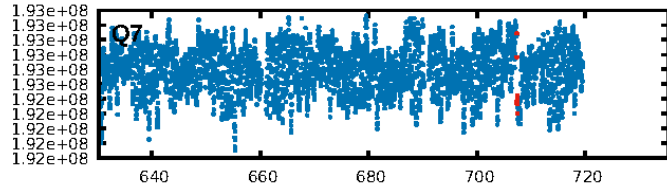
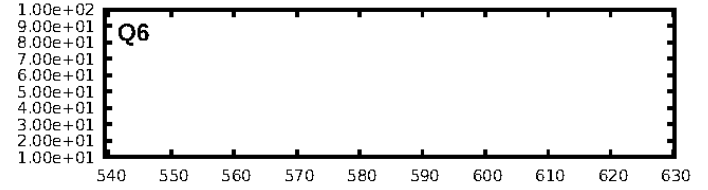
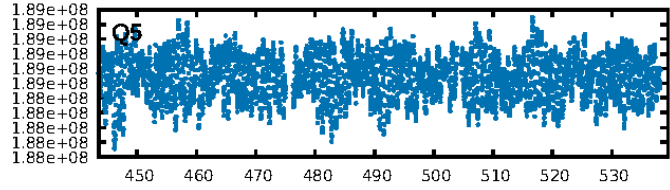
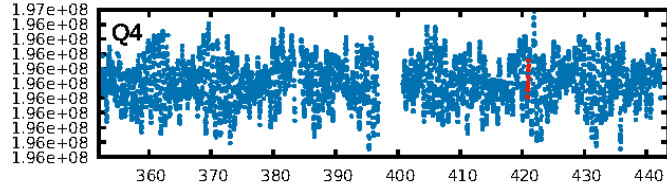
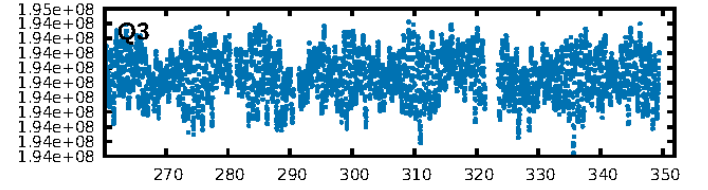
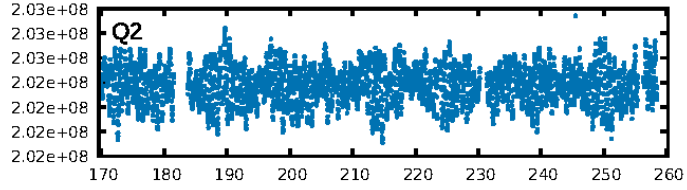
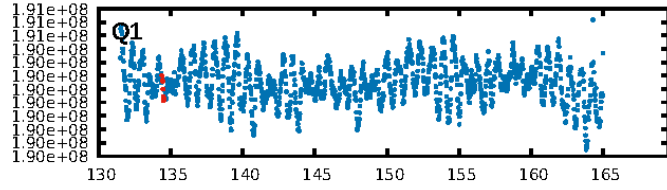
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [243.10 σ]
LongPeriod-sig: 100.0% [523.41 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 29.6%
Bootstrap-pfa: 4.16e-19
RollingBand-fgt: 0.50 [1/2]
GhostDiagnostic-chr: -8.923
Centroid-sig: 12.9%
Centroid-so: 6.683 arcsec [2.58 σ]
OotOffset-rm: 0.877 arcsec [1.25 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.879 arcsec [1.47 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.25 [1/4]

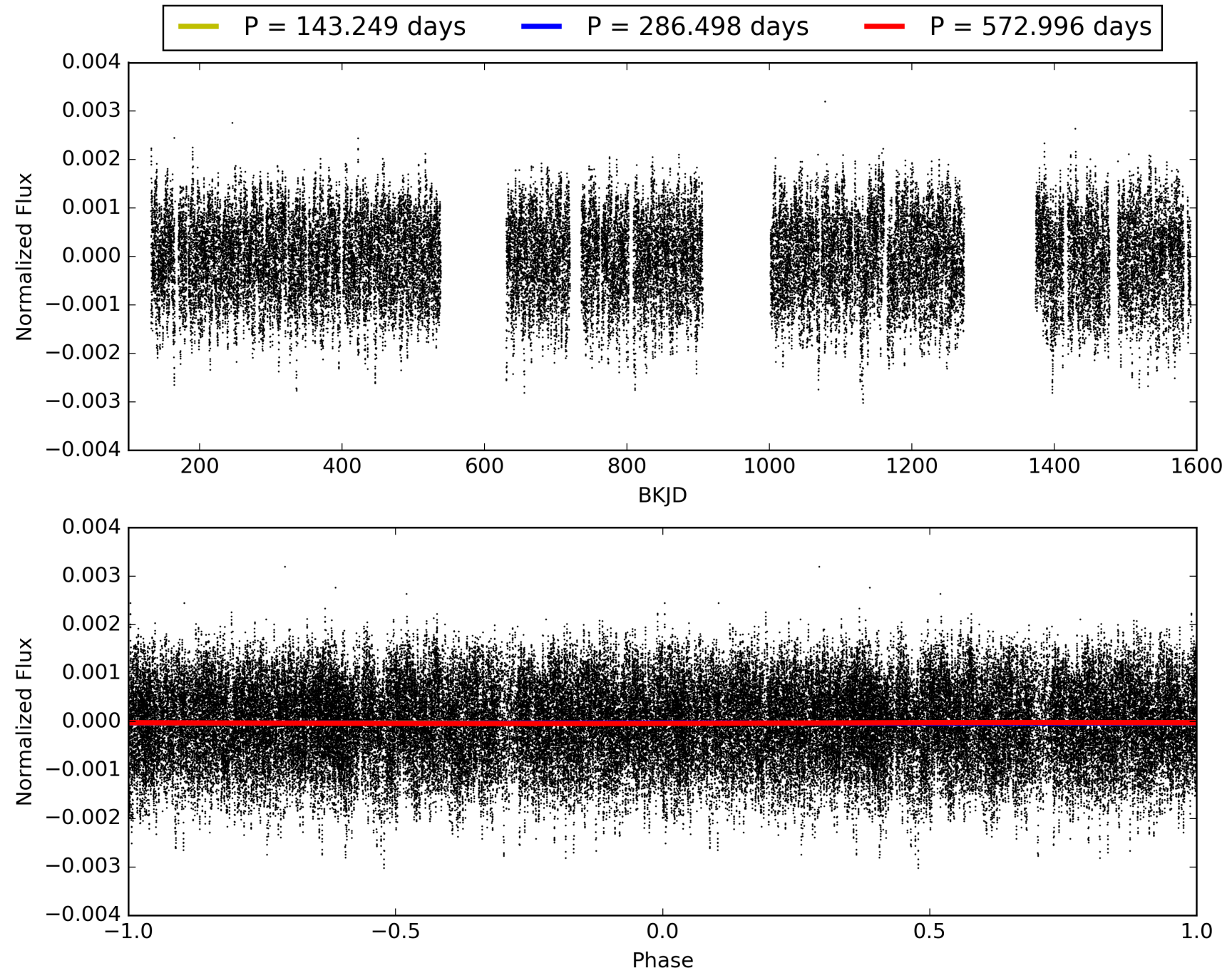
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:13:53 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003967085-01, PDC Light Curves

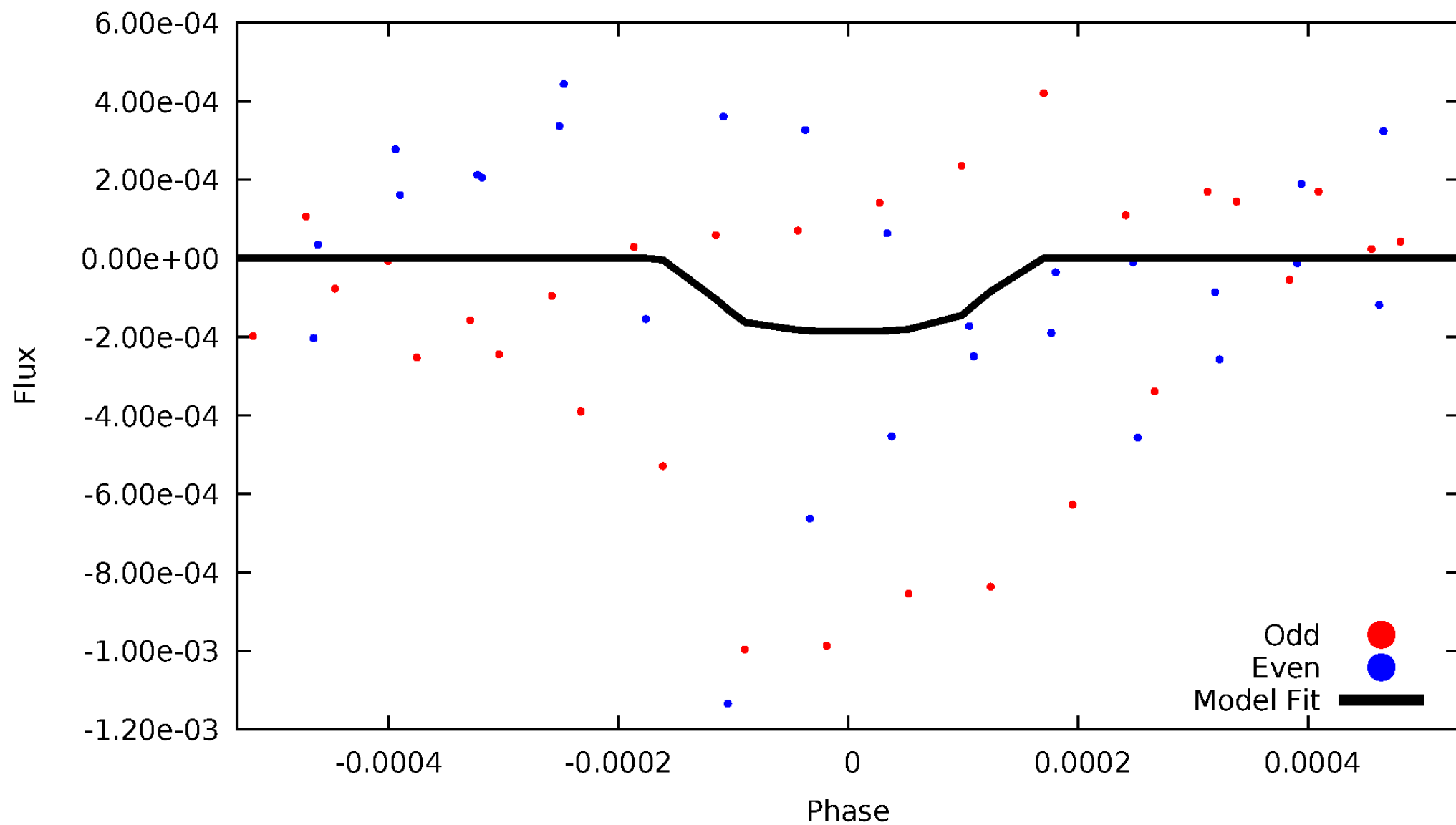


TCE 003967085-01



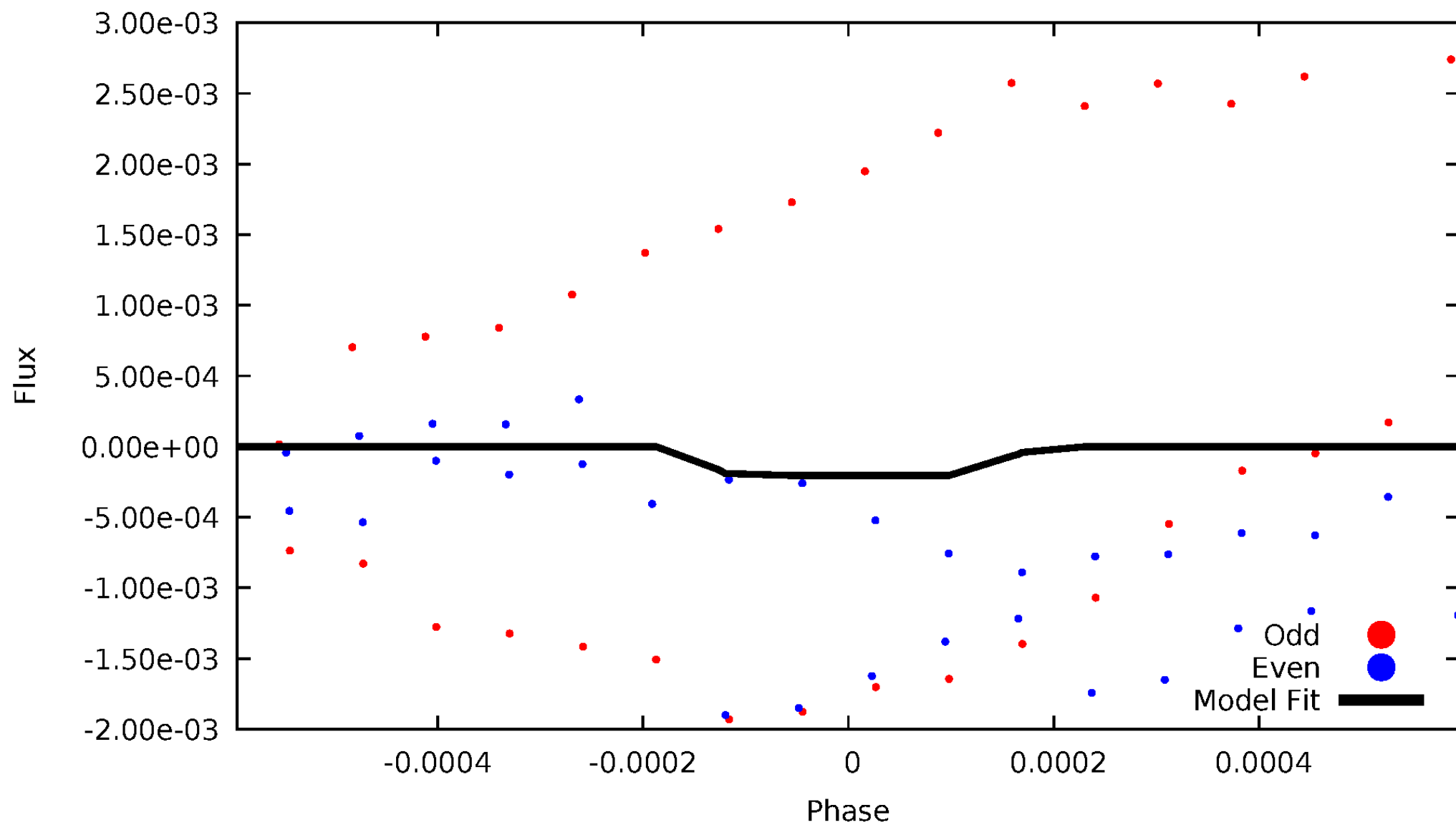
DV Odd/Even

TCE 003967085-01



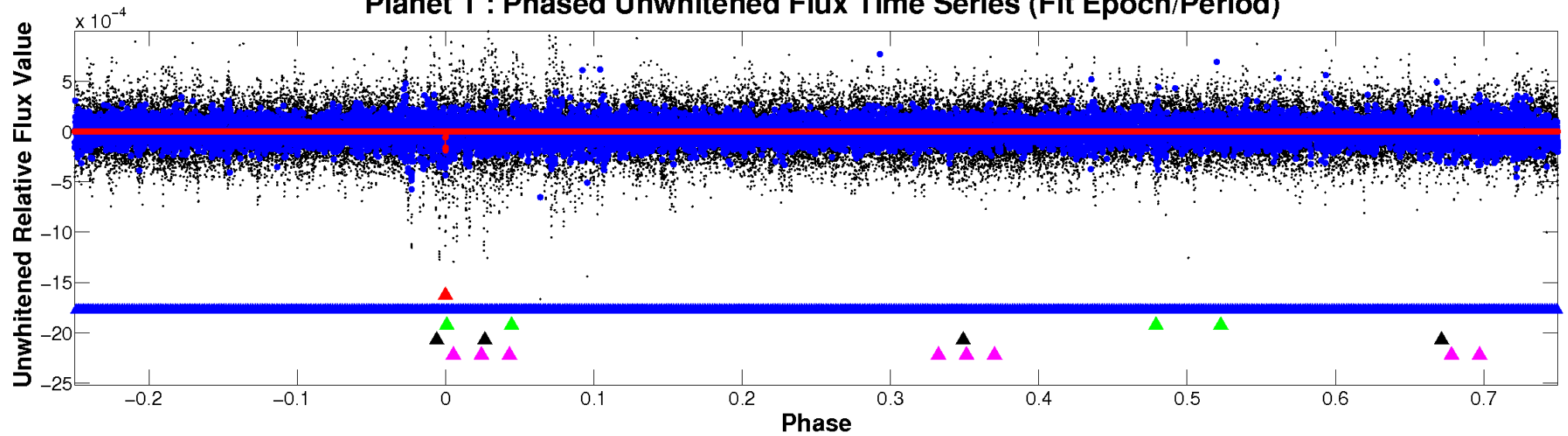
ALT Odd/Even

TCE 003967085-01

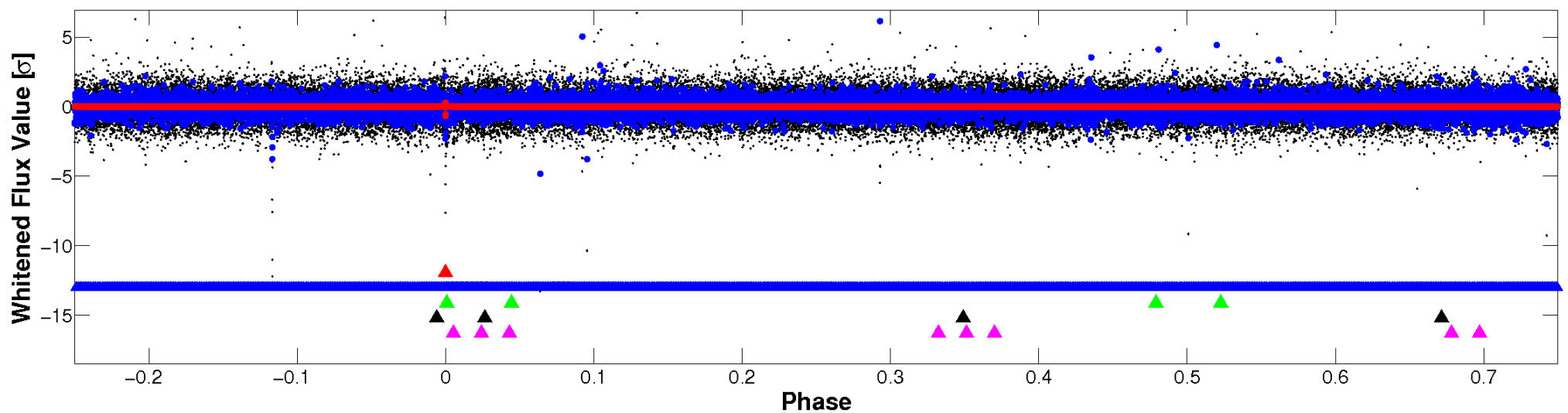


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

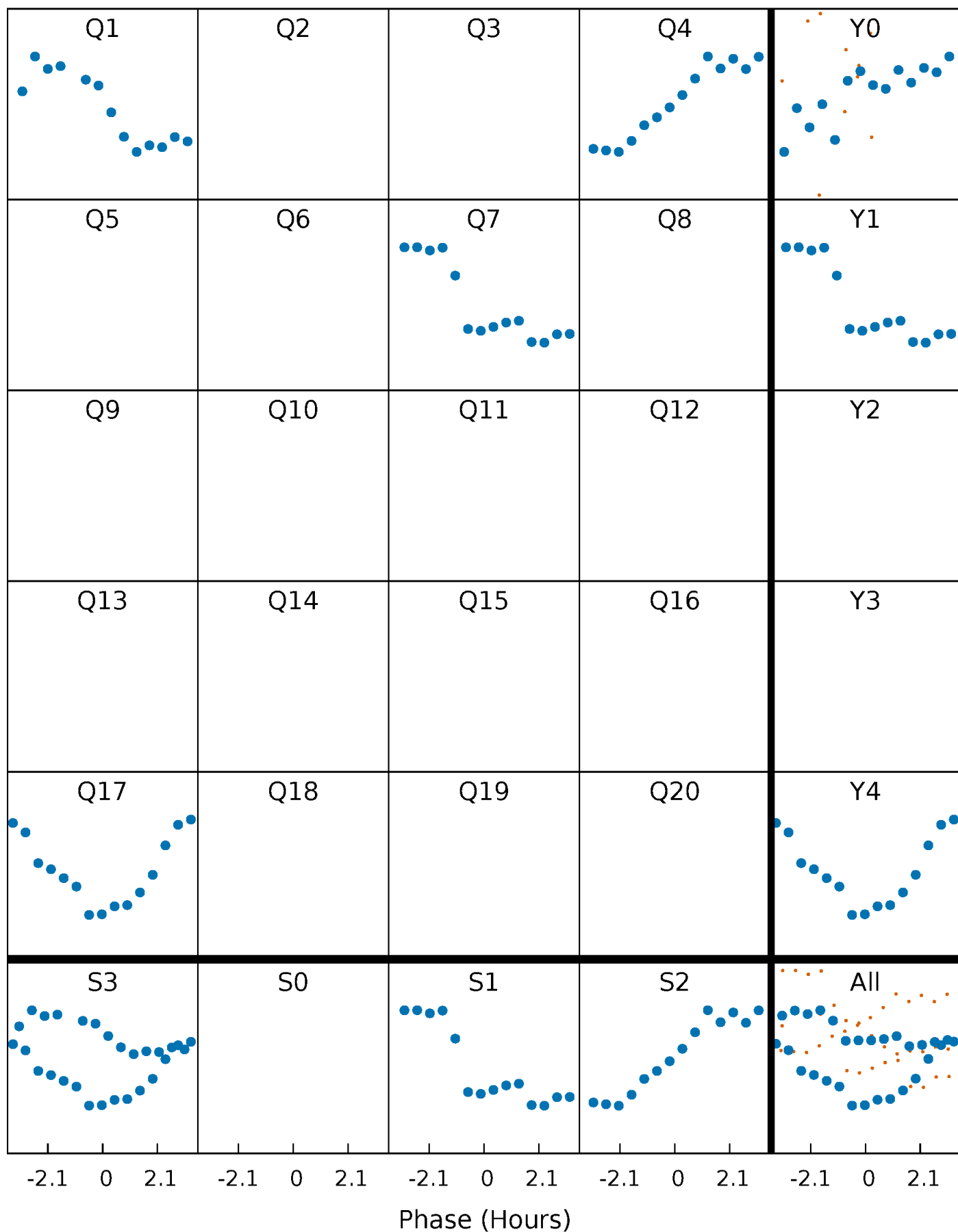


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



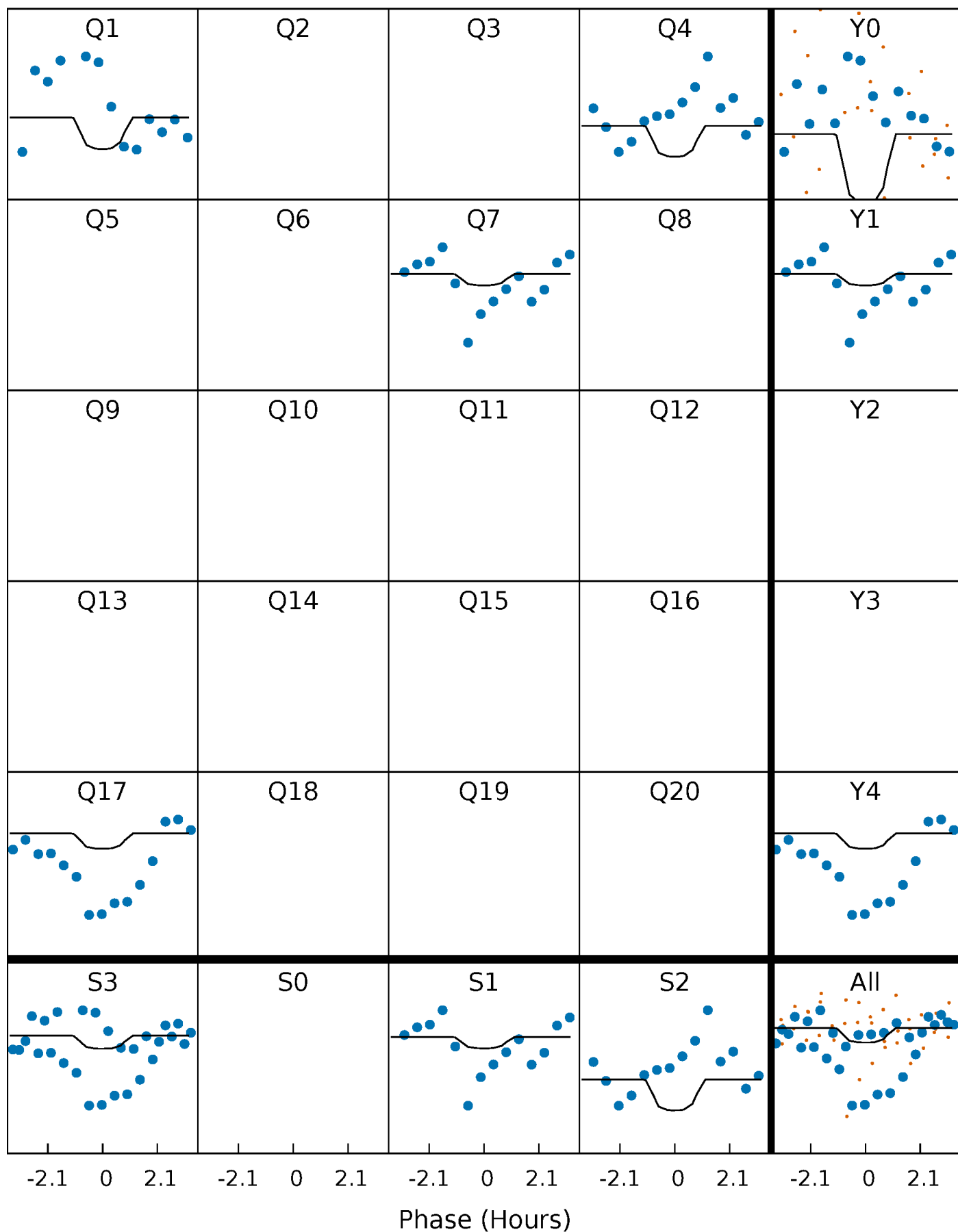
PDC Quarter-Phased Transit Curves

TCE 003967085-01 $P=286.497900$ Days $T_0=134.445214$ (BKJD)



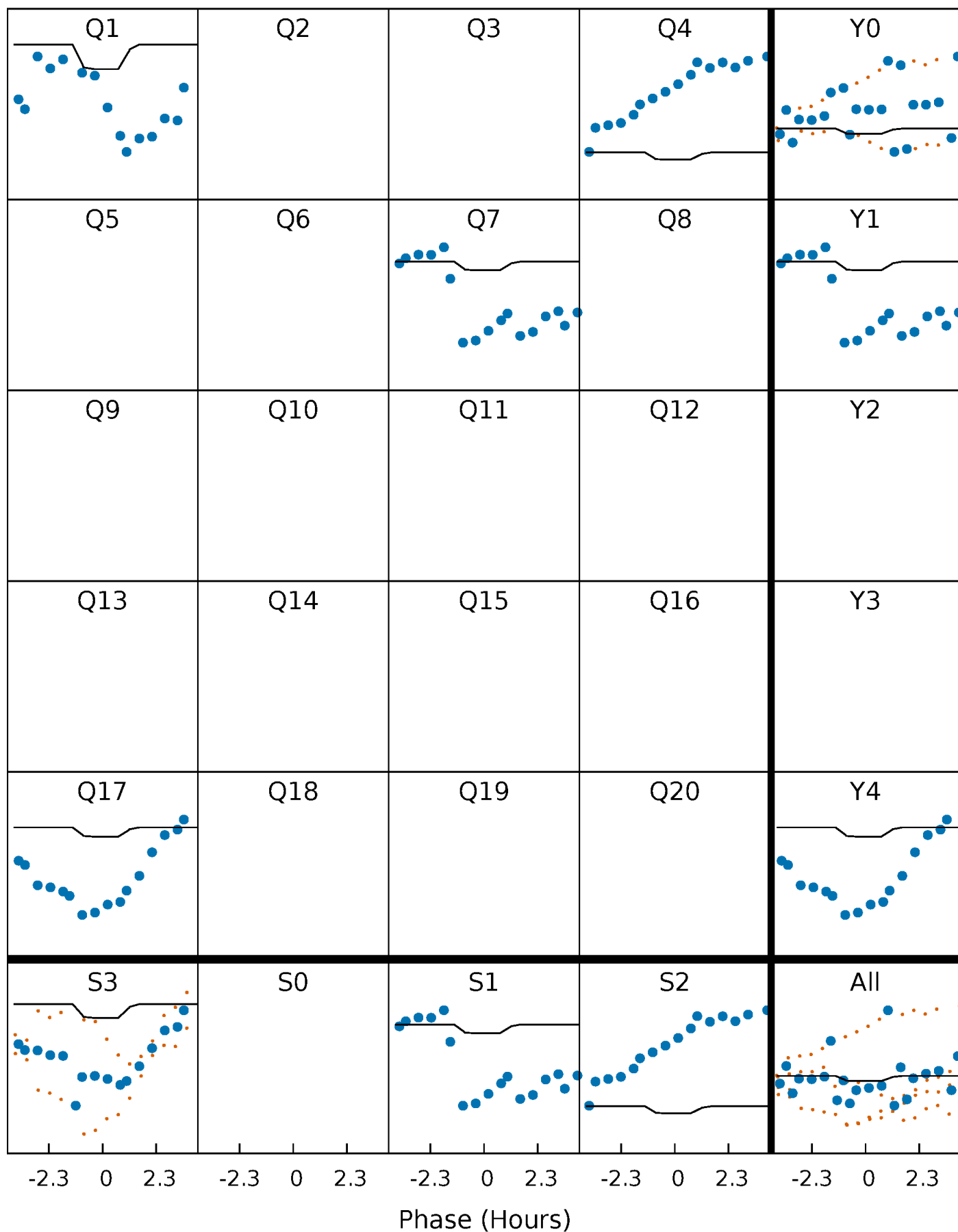
DV Quarter-Phased Transit Curves

TCE 003967085-01 P=286.497900 Days $T_0=134.445214$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

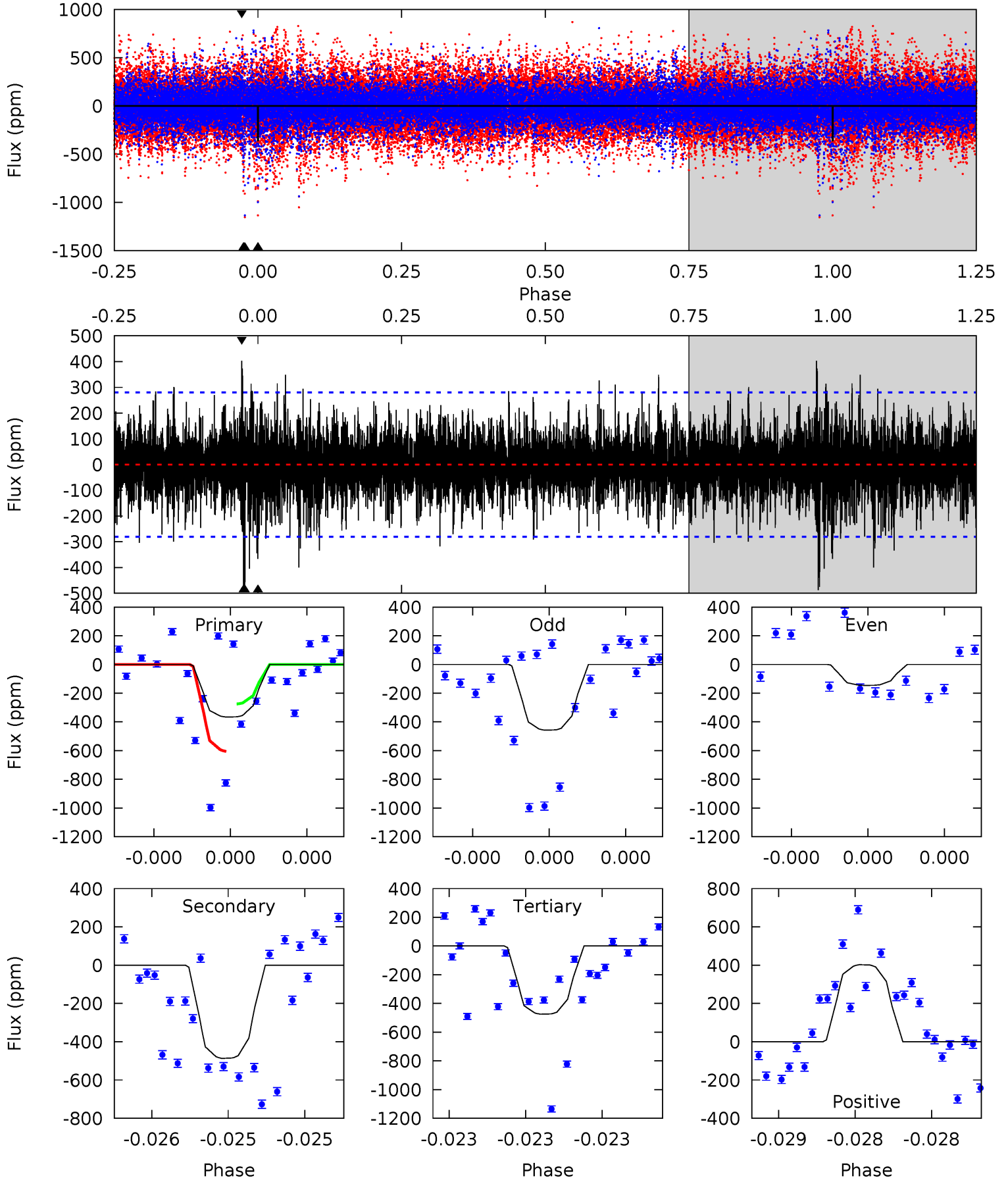
TCE 003967085-01 P=286.498945 Days $T_0=134.447359$ (BKJD)



DV Model-Shift Uniqueness Test

003967085-01, P = 286.497900 Days, E = 134.445214 Days

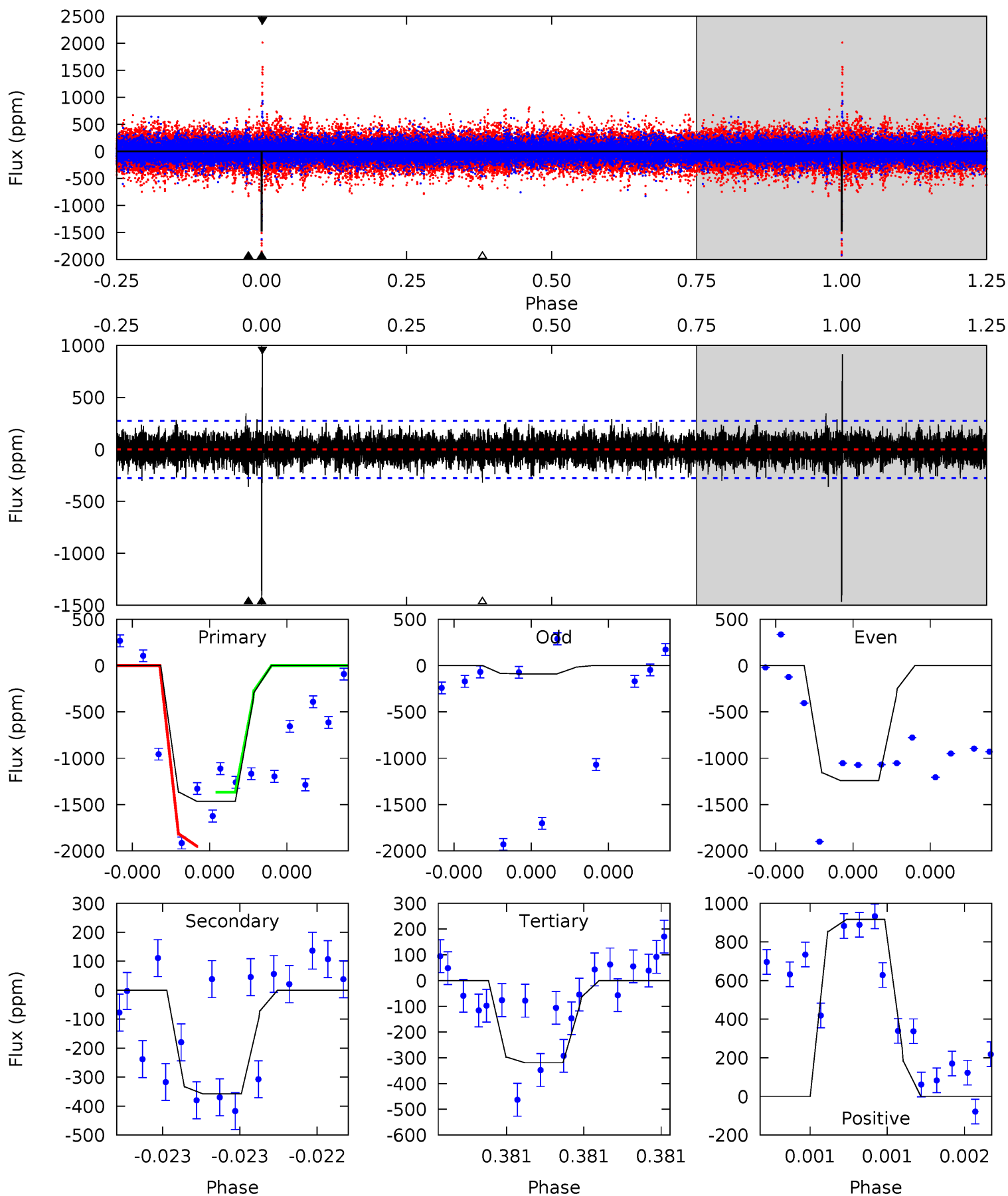
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.37	9.80	9.56	8.10	5.64	3.59	1.80	-2.19	-0.73	0.25	1.70	3.01	1.27	0.45	3.23



Alt Model-Shift Uniqueness Test

003967085-01, P = 286.498945 Days, E = 134.447359 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.1	7.36	6.56	18.8	5.66	3.62	1.71	23.6	11.3	0.80	-11.5	13.2	0.44	0.38	5.46



Stellar Parameters For KIC 003967085

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6869^{+165}_{-284}	$2.851^{+0.722}_{-0.038}$	$0.210^{+0.200}_{-0.250}$	$11.648^{+0.806}_{-7.659}$	$3.510^{+0.070}_{-1.421}$	$0.003^{+0.045}_{-0.000}$
	+2%/-4%	+25%/-1%	+95%/-119%	+7%/-66%	+2%/-40%	+1436%/-14%
Source	PHO1	FLK73	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003967085-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-487 ± 50	$87.29^{+85.50}_{-61.77}$	1188^{+103}_{-209}	3770^{+2540}_{-704}	55^{+595}_{-42}
Alt.	-358 ± 49	$86.94^{+98.91}_{-61.81}$	1191^{+97}_{-219}	3606^{+2133}_{-711}	41^{+438}_{-32}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

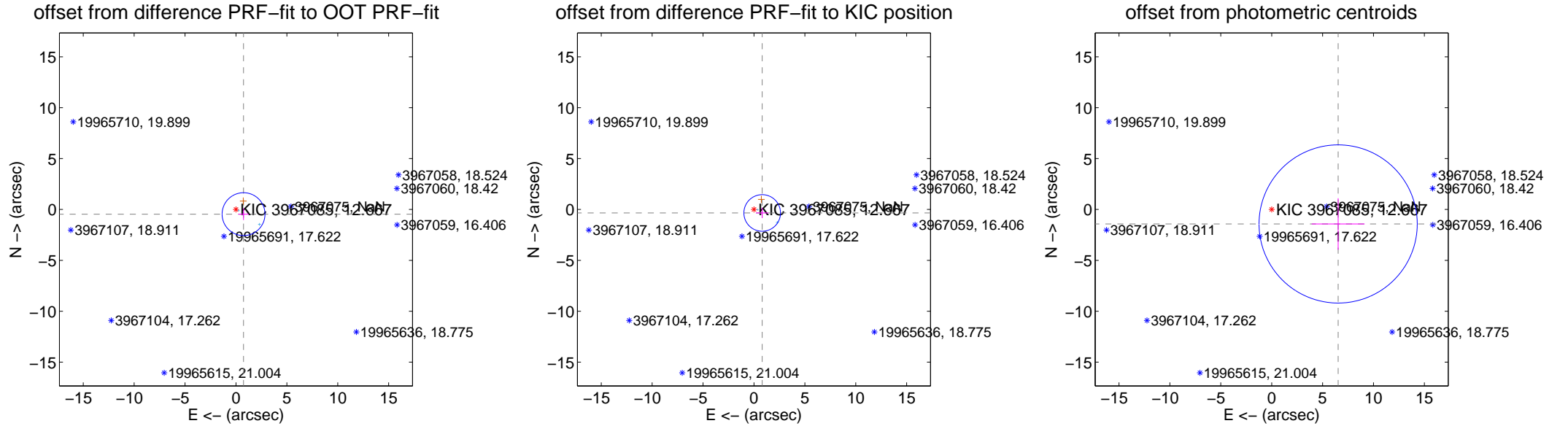
DV Centroid Data

Supplemental centroid analysis for 003967085-01. Kepler magnitude: 12.67. Transit SNR 2.21

There are 2 quarters with good PRF difference image offsets

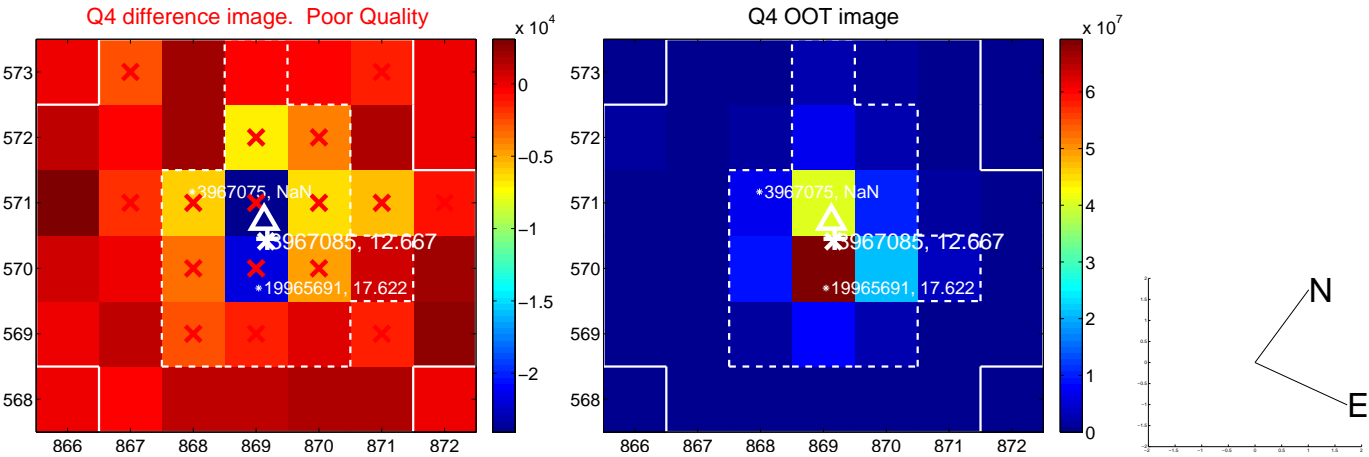
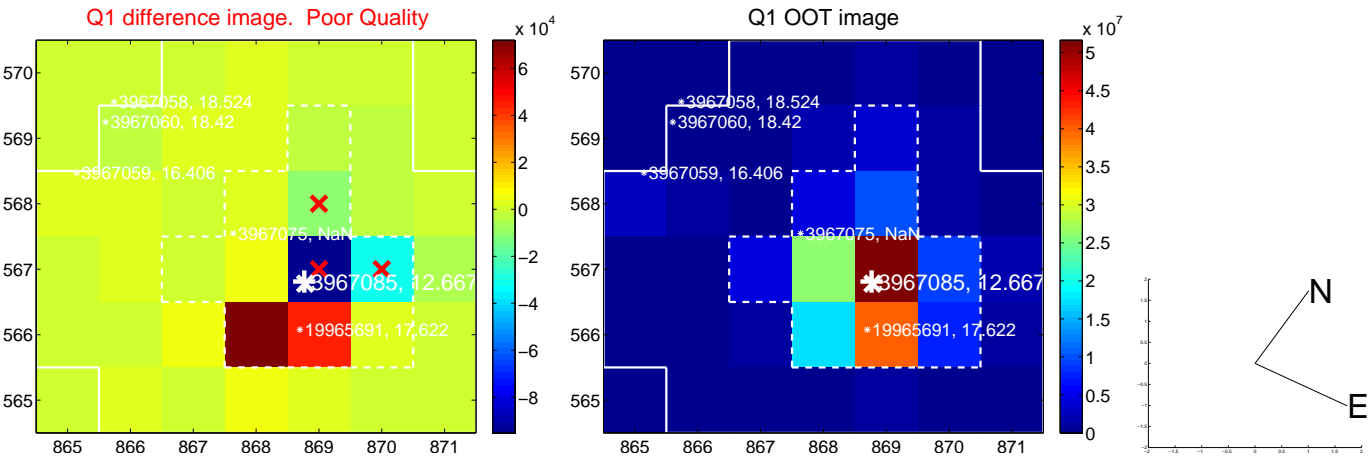
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.877 ± 0.702	1.25	-0.746 ± 0.500	-0.460 ± 0.582
PRF-fit source offset from KIC position	0.879 ± 0.600	1.47	-0.809 ± 0.614	-0.342 ± 0.510
photometric centroid source offset	6.68 ± 2.59	2.58	-6.53 ± 2.59	-1.42 ± 2.53

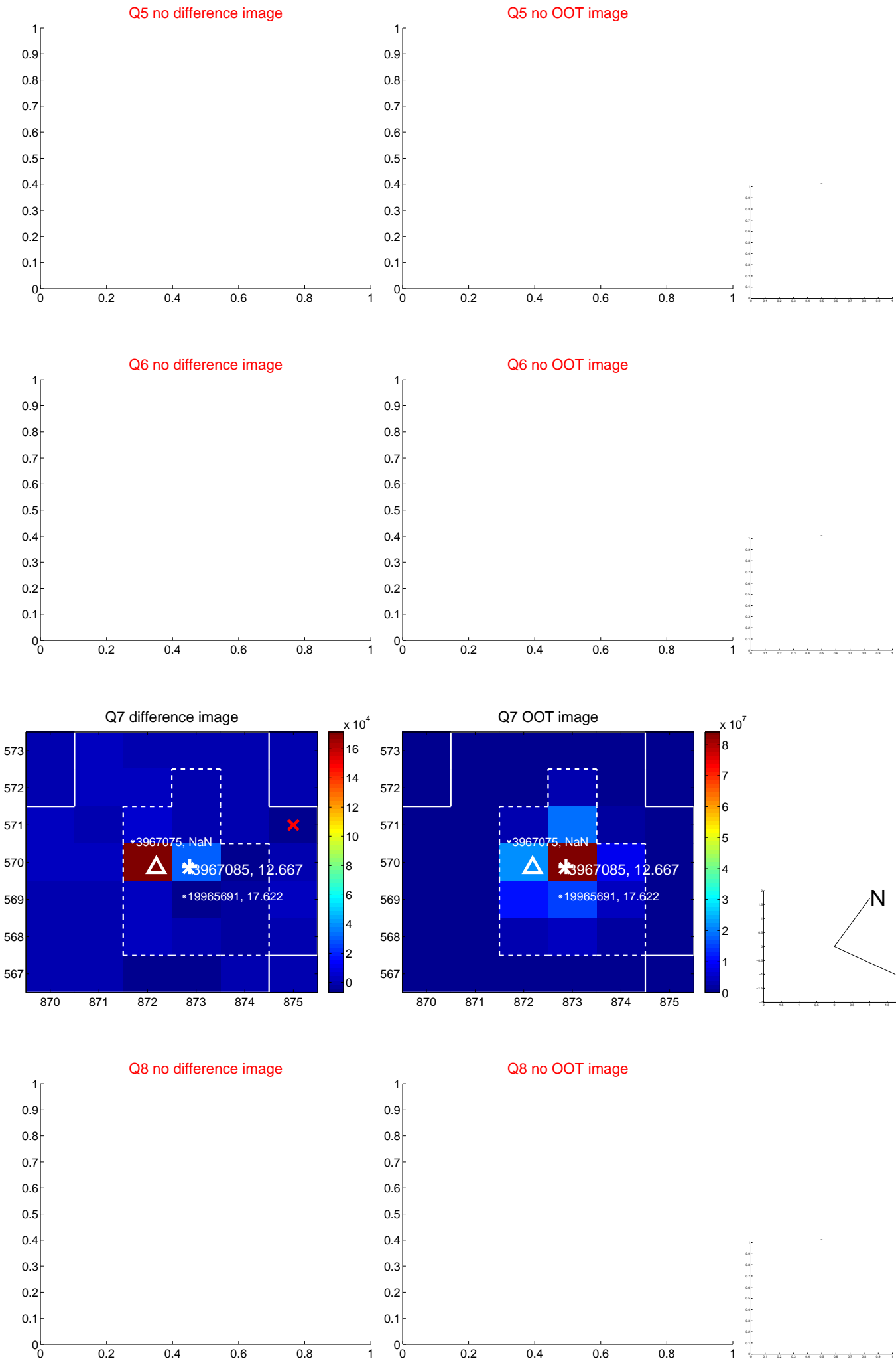


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



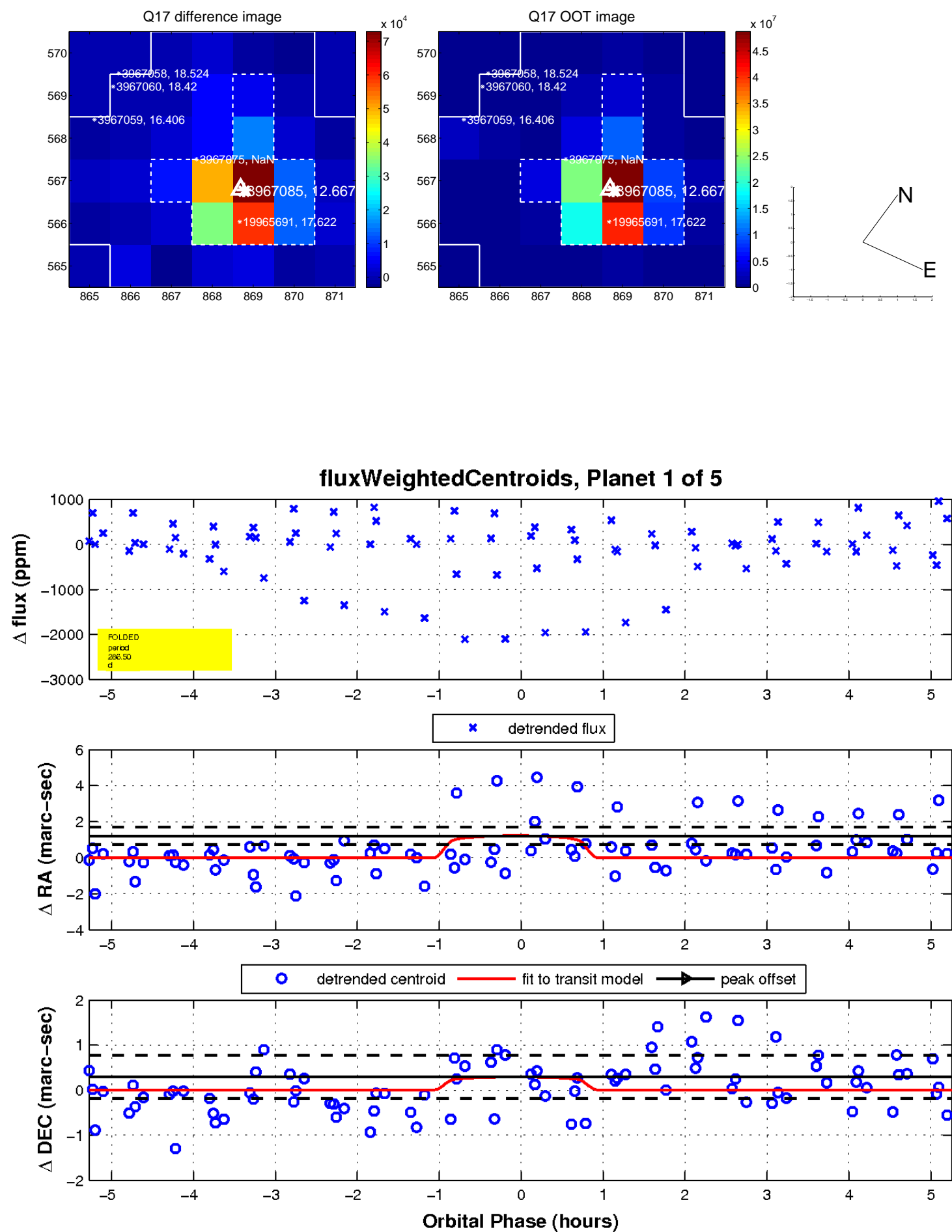
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

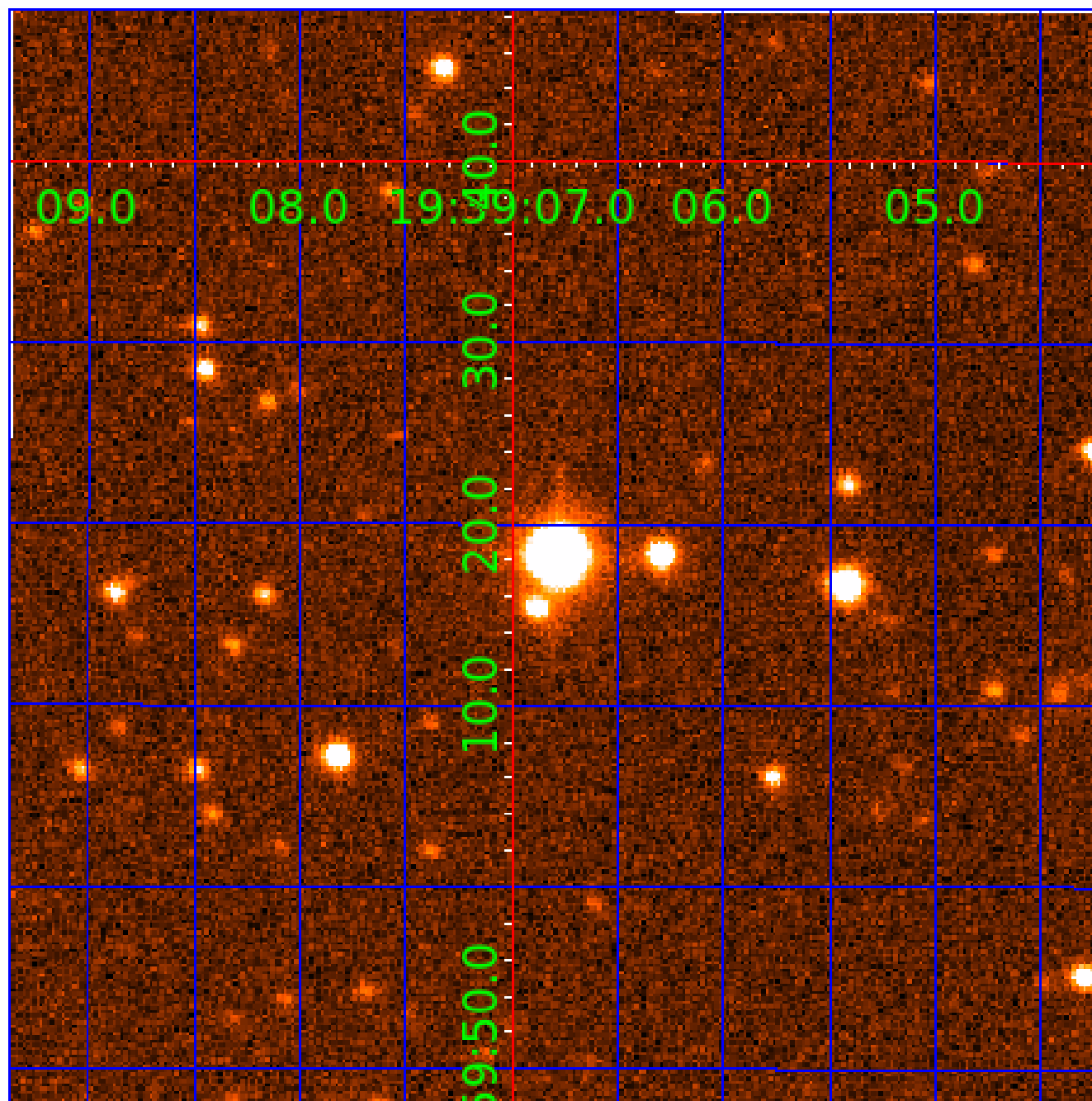


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003967085

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003967085-01	OBS	No	286.497900	134.445214	187.0	1.828	11.0	2.2	11.65	6869	17.52	161.86
003967085-02	OBS	No	0.934856	132.177801	34.0	3.814	8.6	9.2	11.65	6869	7.92	0.00
003967085-05	OBS	No	192.801450	229.678310	332.4	9.068	9.5	7.2	11.65	6869	23.16	274.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967085-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967085-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003967085-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

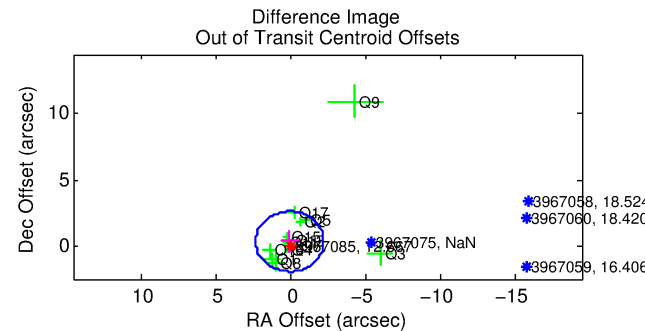
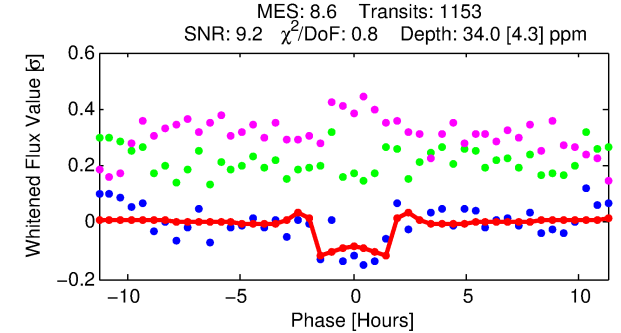
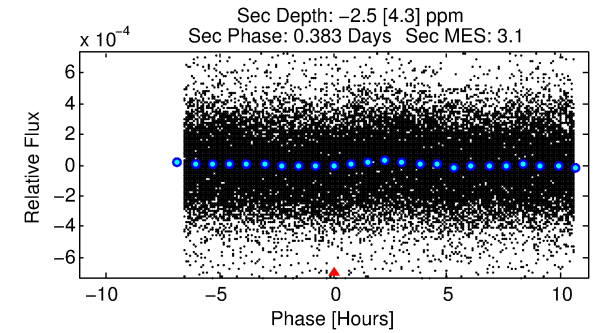
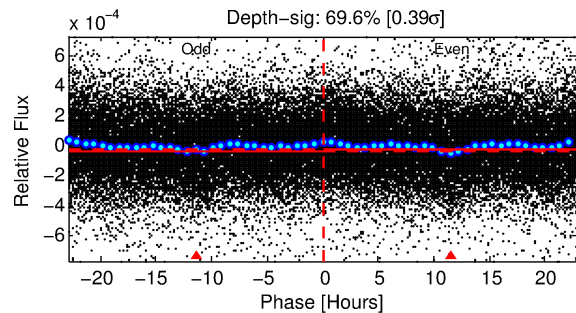
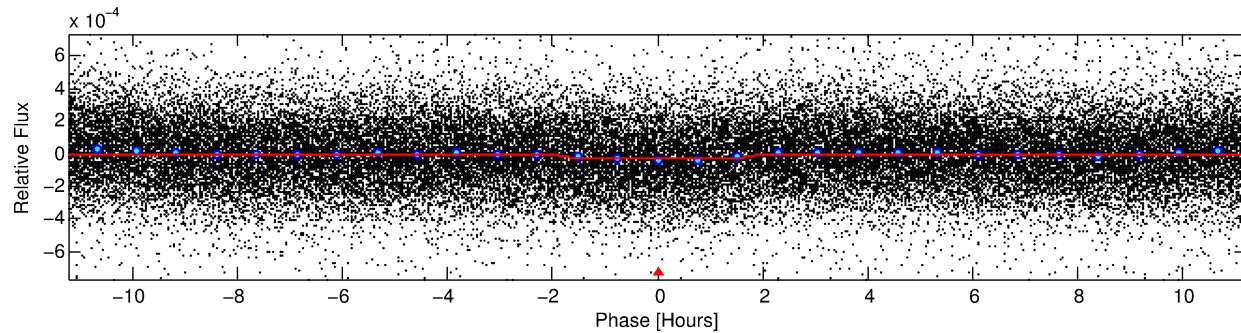
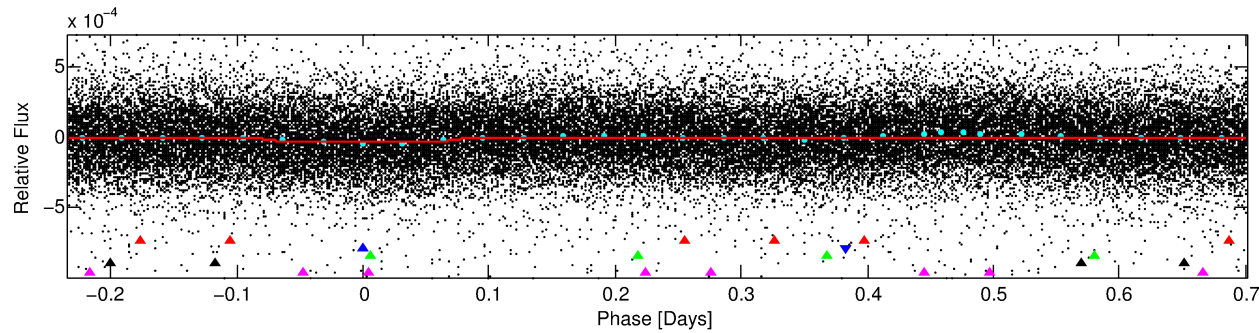
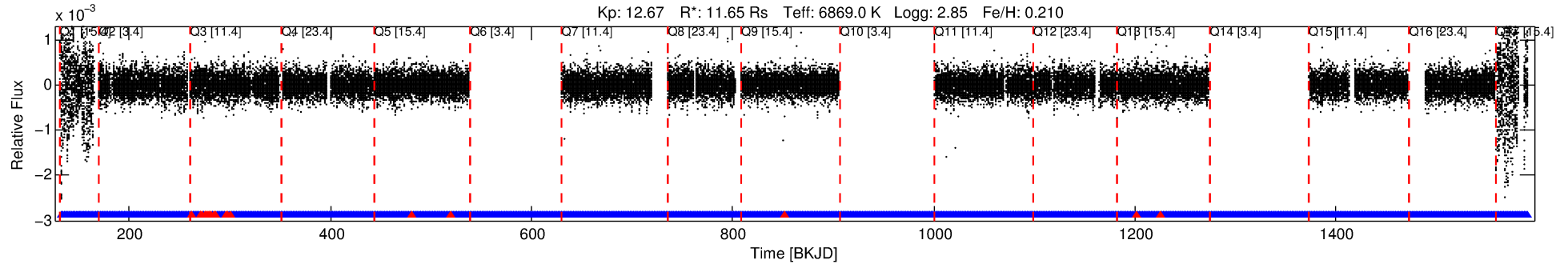
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967085-02

No Significant Match Found

DV One-Page Summary

KIC: 3967085 Candidate: 2 of 5 Period: 0.935 d



DV Fit Results:

Period = 0.93486 [0.00001] d
Epoch = 132.1778 [0.0023] BKJD
Rp/R* = 0.0062 [0.0014]
a/R* = 1.26 [0.62]
b = 0.90 [0.28]
Seff = N/A
Teq = N/A
Rp = 7.92 [5.50] Re
a = N/A
Ag = N/A
Teff = N/A

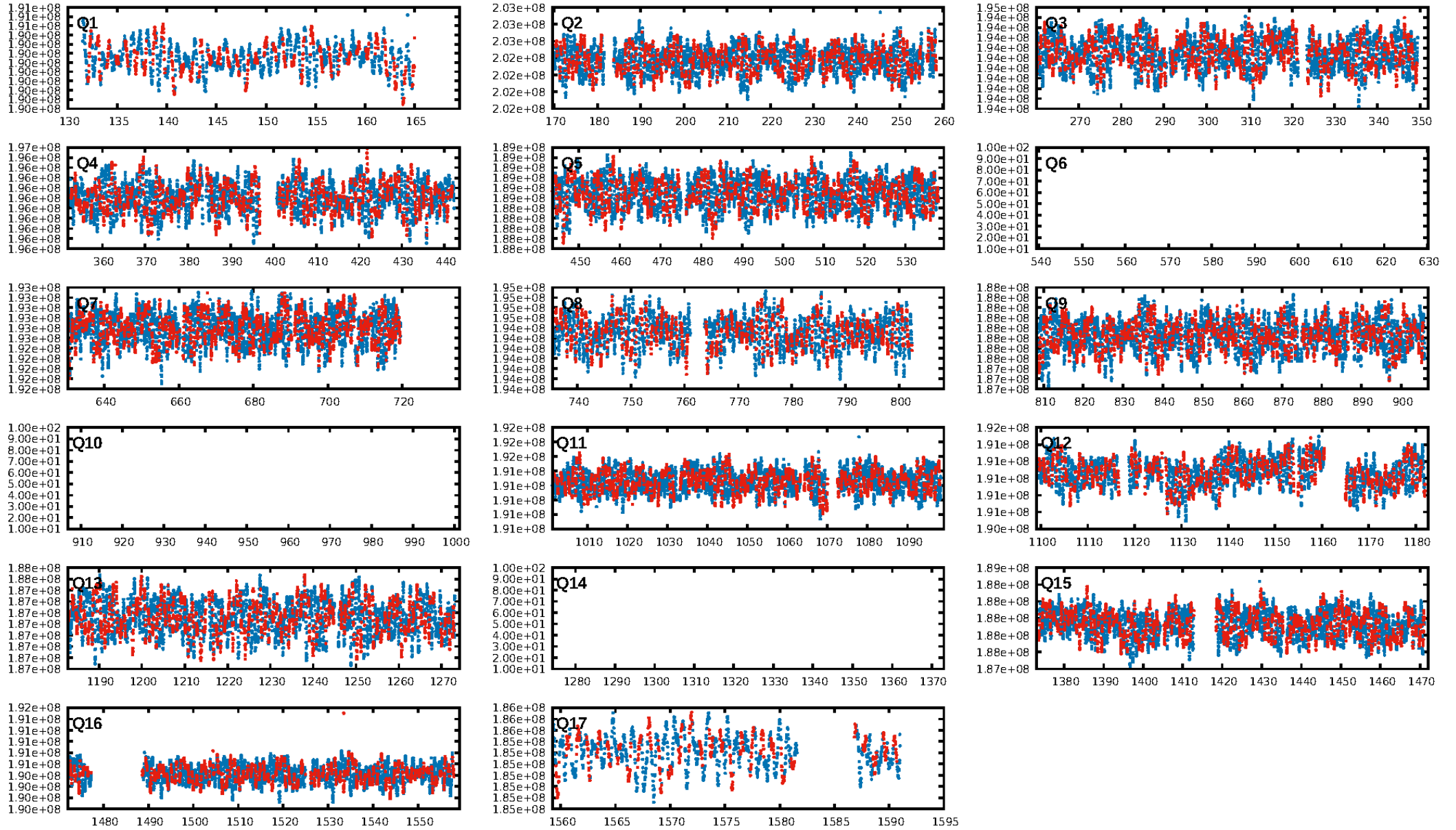
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [468.10 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.50e-13
RollingBand-fgt: 0.98 [1070/1088]
GhostDiagnostic-chr: 9.696
Centroid-sig: 5.2%
Centroid-so: 0.909 arcsec [1.53 σ]
OotOffset-rm: 0.337 arcsec [0.44 σ]
KicOffset-rm: 0.467 arcsec [0.60 σ]
OotOffset-st: 1/4/3/5 [13]
KicOffset-st: 1/4/3/5 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 1.00 [14/14]

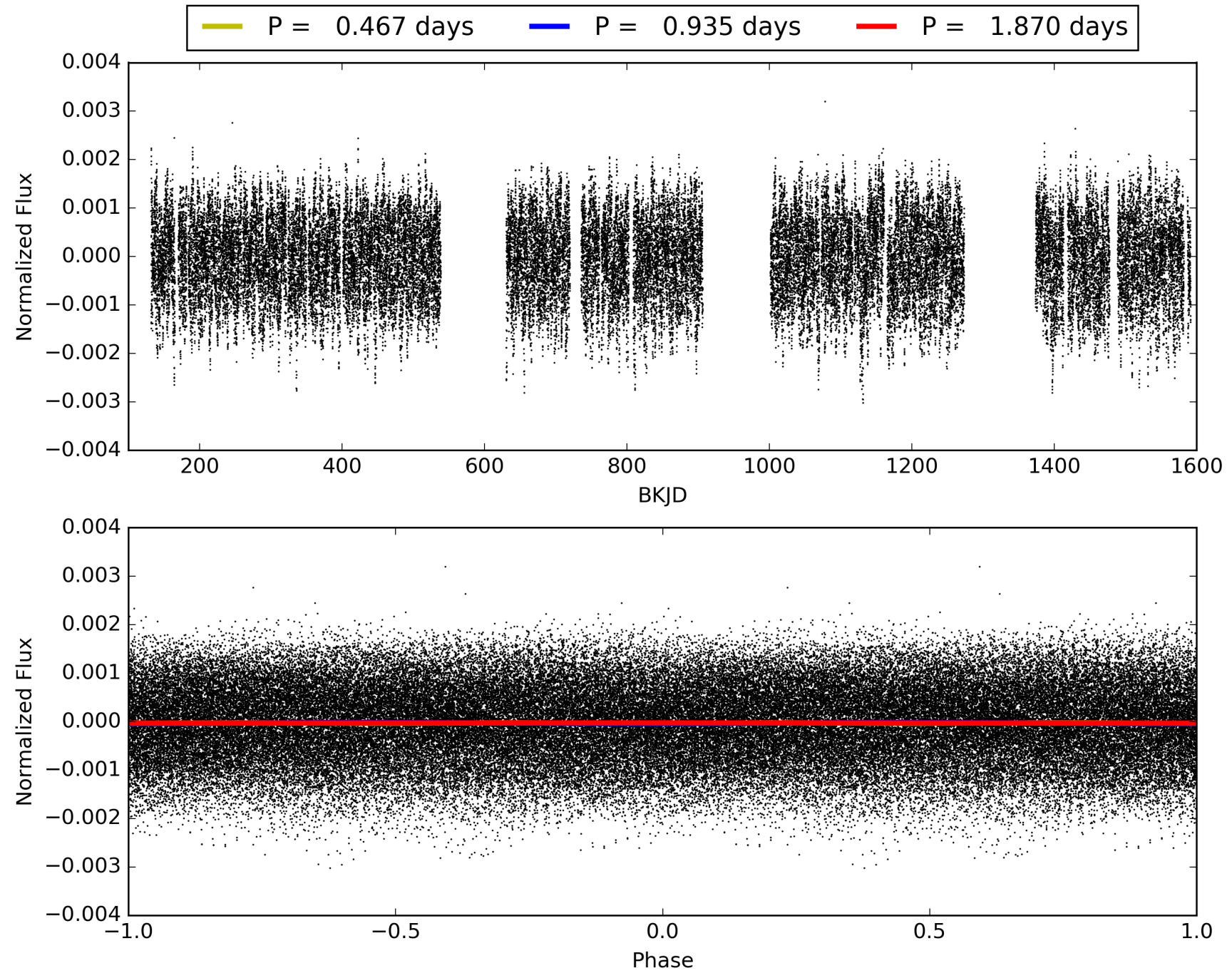
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:14:01 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003967085-02, PDC Light Curves

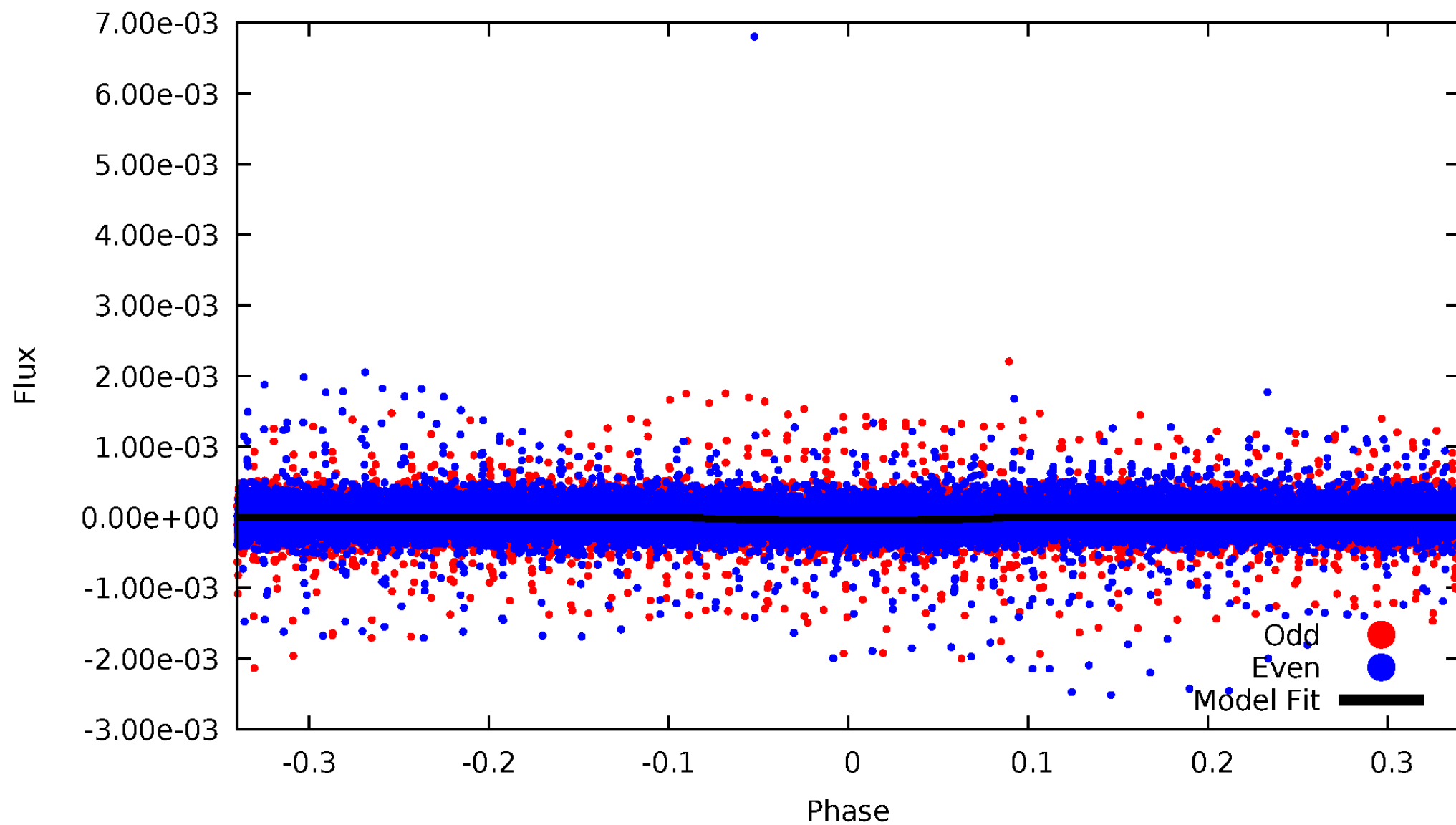


TCE 003967085-02



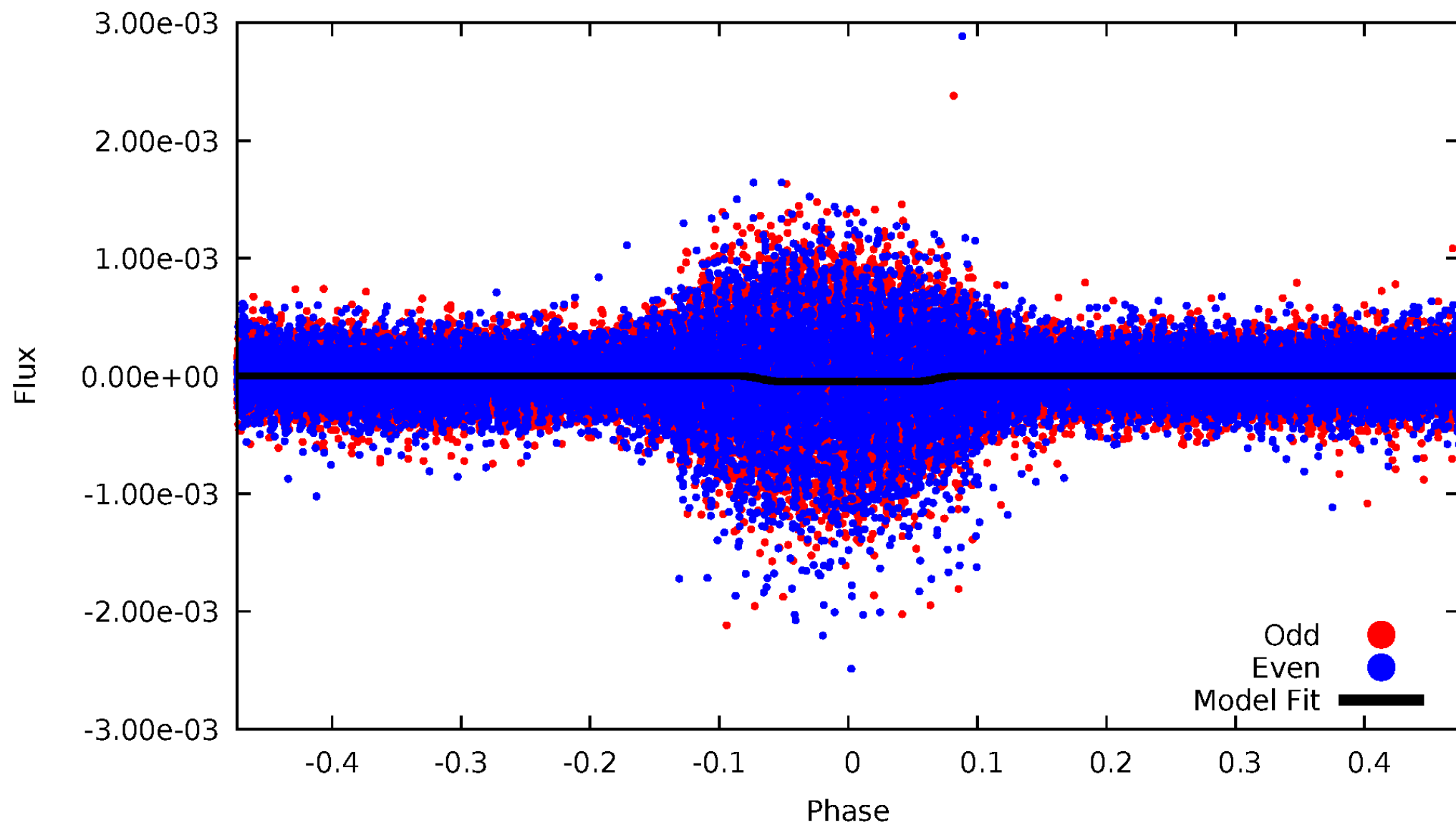
DV Odd/Even

TCE 003967085-02



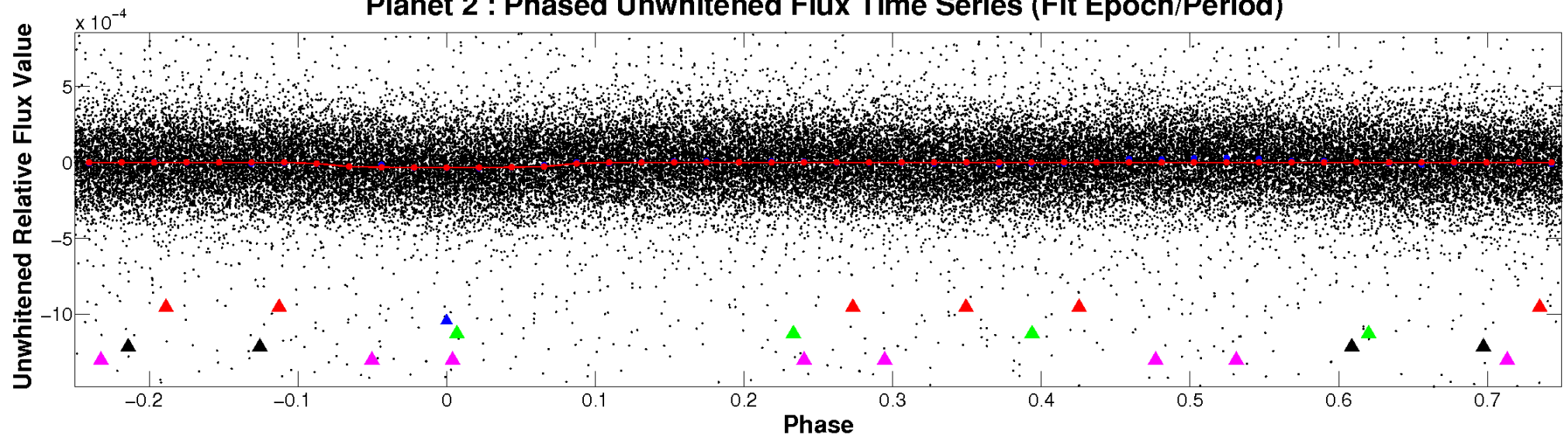
ALT Odd/Even

TCE 003967085-02

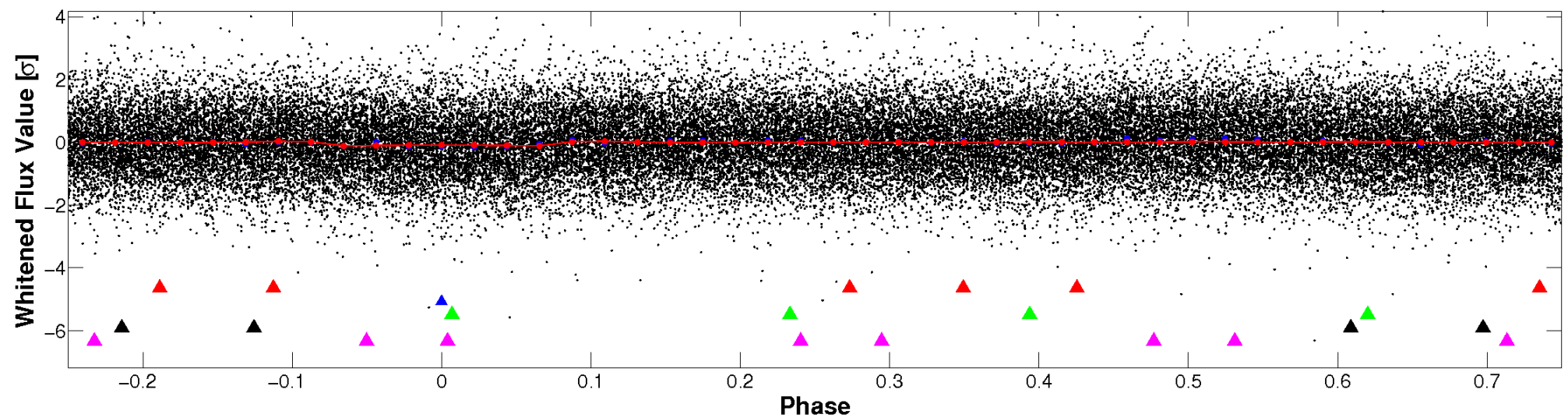


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

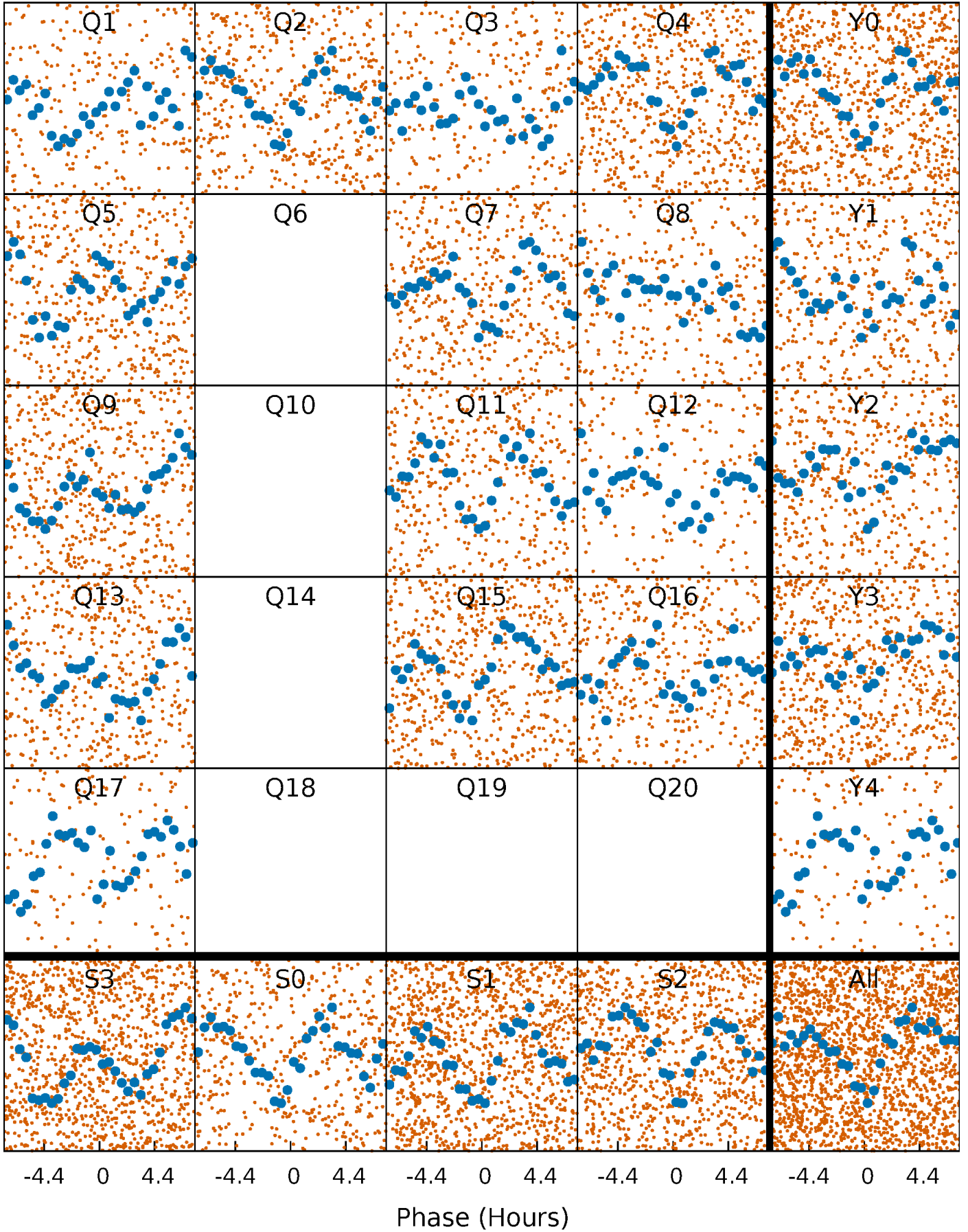


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



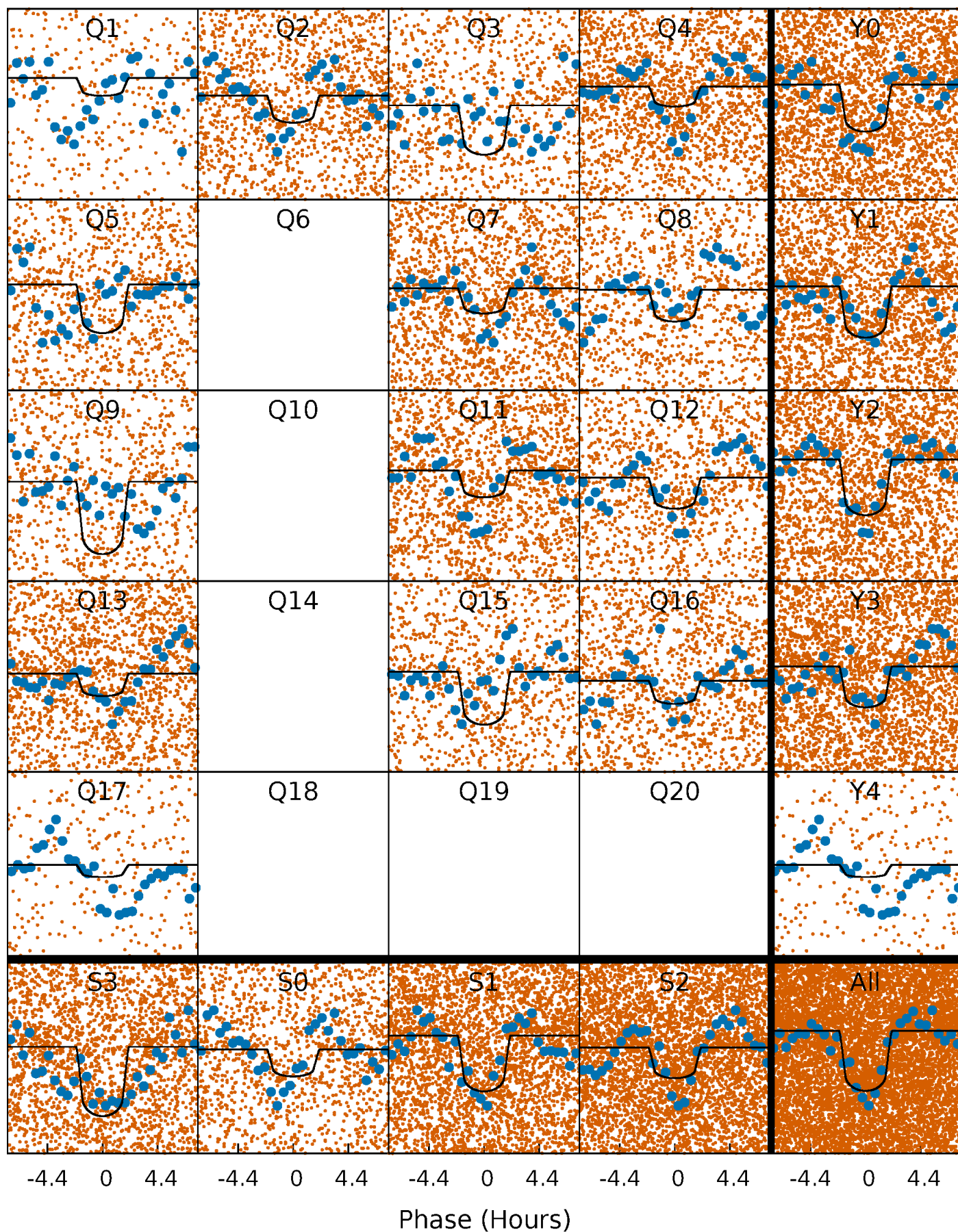
PDC Quarter-Phased Transit Curves

TCE 003967085-02 P= 0.934856 Days $T_0=132.177801$ (BKJD)



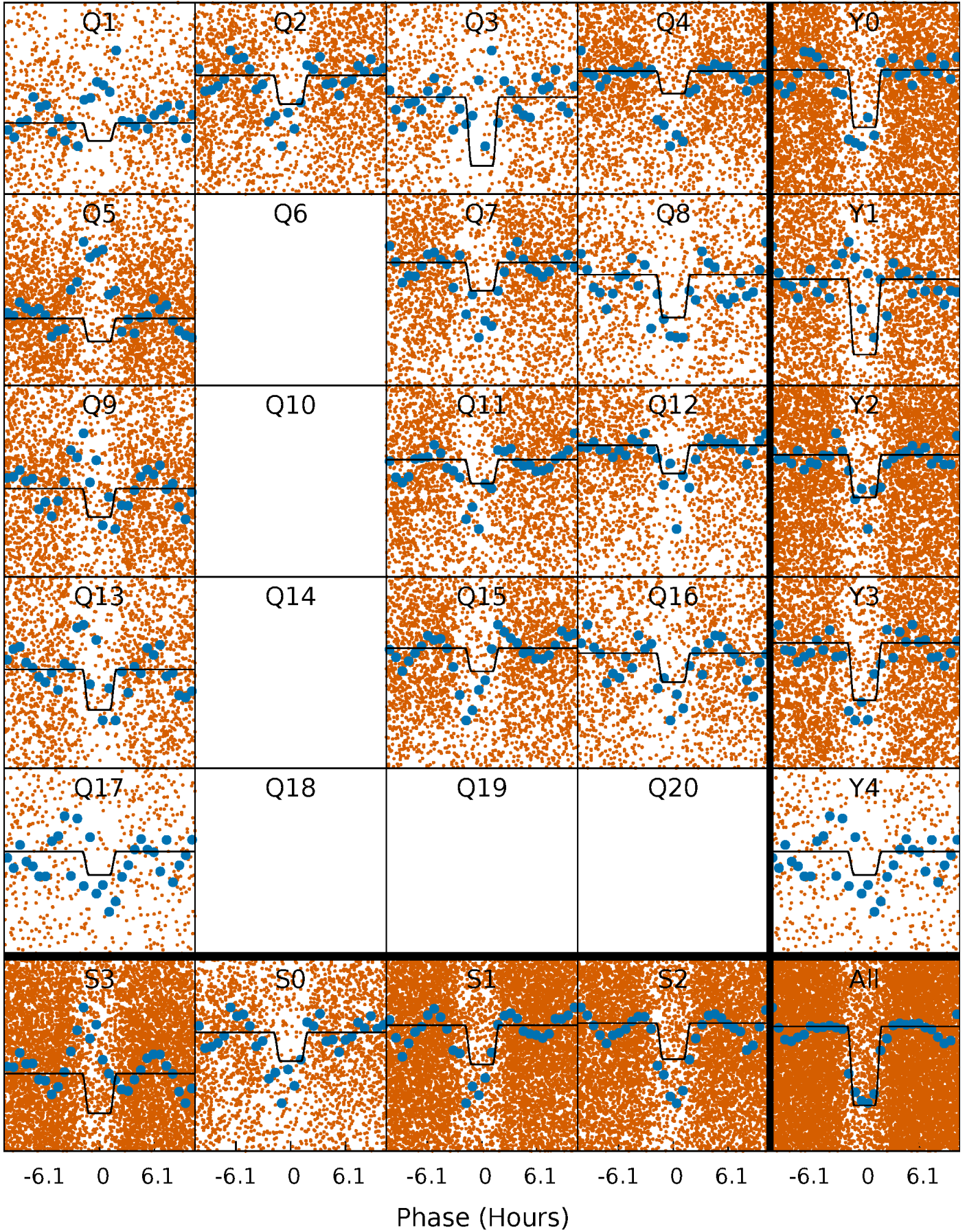
DV Quarter-Phased Transit Curves

TCE 003967085-02 $P = 0.934856$ Days $T_0 = 132.177801$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

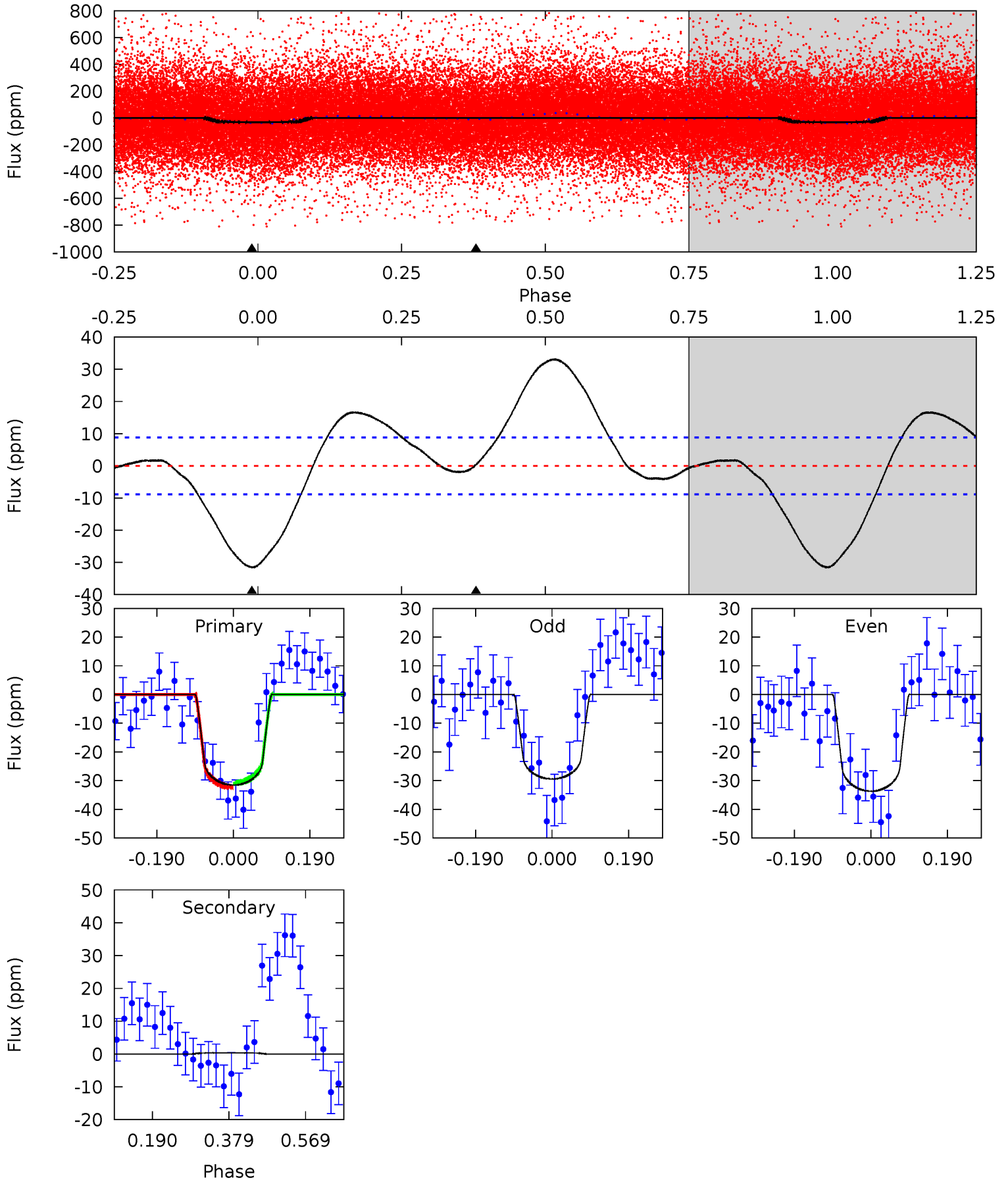
TCE 003967085-02 P= 0.934860 Days $T_0=132.181233$ (BKJD)



DV Model-Shift Uniqueness Test

003967085-02, P = 0.934856 Days, E = 131.242945 Days

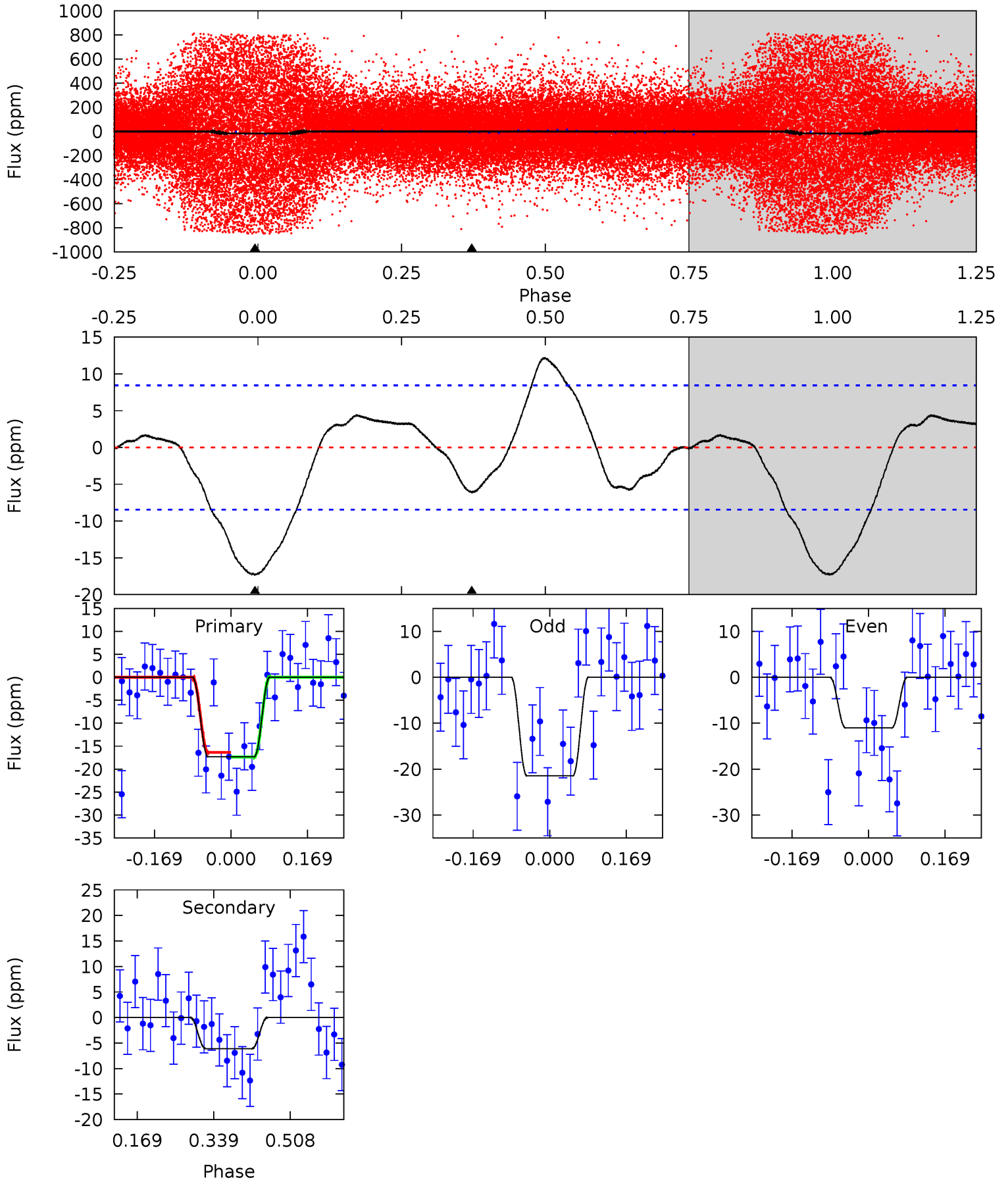
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	-0.17	0	0	4.43	1.31	3.85	15.8	15.8	-0.17	-0.17	1.07	0.95	0.51	0.36



Alt Model-Shift Uniqueness Test

003967085-02, P = 0.934860 Days, E = 131.246373 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.12	3.22	0	0	4.45	1.37	1.90	9.12	9.12	3.22	3.22	2.68	2.47	0.41	0.27



Stellar Parameters For KIC 003967085

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6869^{+165}_{-284}	$2.851^{+0.722}_{-0.038}$	$0.210^{+0.200}_{-0.250}$	$11.648^{+0.806}_{-7.659}$	$3.510^{+0.070}_{-1.421}$	$0.003^{+0.045}_{-0.000}$
	+2%/-4%	+25%/-1%	+95%/-119%	+7%/-66%	+2%/-40%	+1436%/-14%
Source	PHO1	FLK73	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003967085-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 2	$6.57^{+2.32}_{-2.46}$	7995^{+710}_{-1314}	-6553^{+1053}_{-616}	$-0.002^{+0.022}_{-0.025}$
Alt.	-6 ± 2	$7.30^{+2.26}_{-2.59}$	8028^{+680}_{-1293}	-6264^{+1345}_{-644}	$0.048^{+0.069}_{-0.021}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

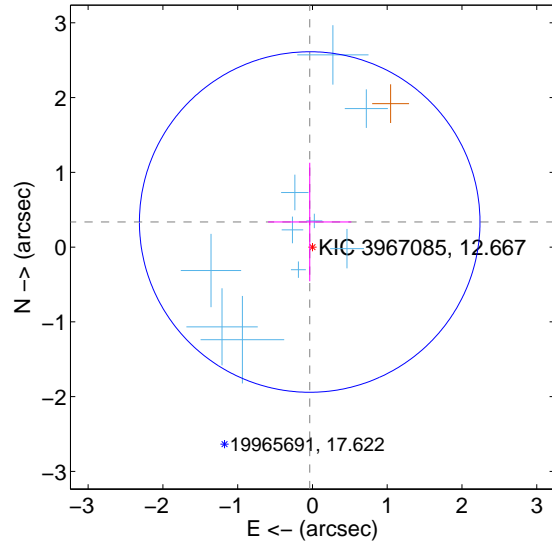
Supplemental centroid analysis for 003967085-02. Kepler magnitude: 12.67. Transit SNR 9.21

There are 10 quarters with good PRF difference image offsets

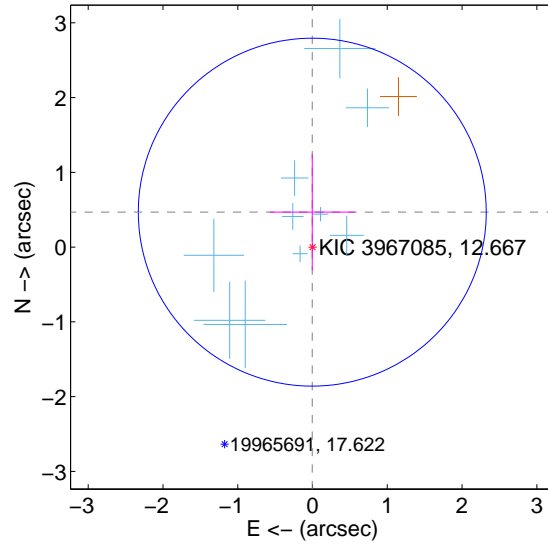
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.337 ± 0.759	0.44	0.036 ± 0.557	0.335 ± 0.793
PRF-fit source offset from KIC position	0.467 ± 0.775	0.60	0.003 ± 0.568	0.467 ± 0.777
photometric centroid source offset	0.91 ± 0.60	1.53	-0.32 ± 0.54	0.85 ± 0.60

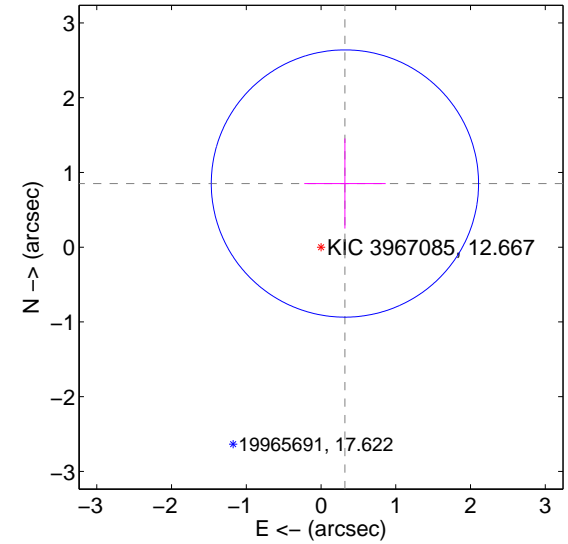
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

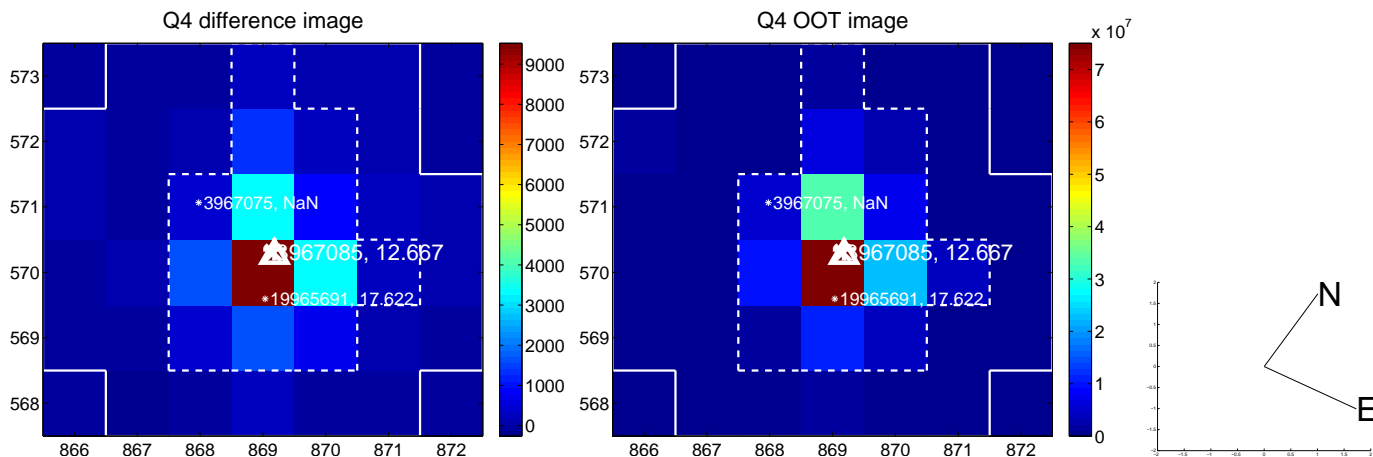
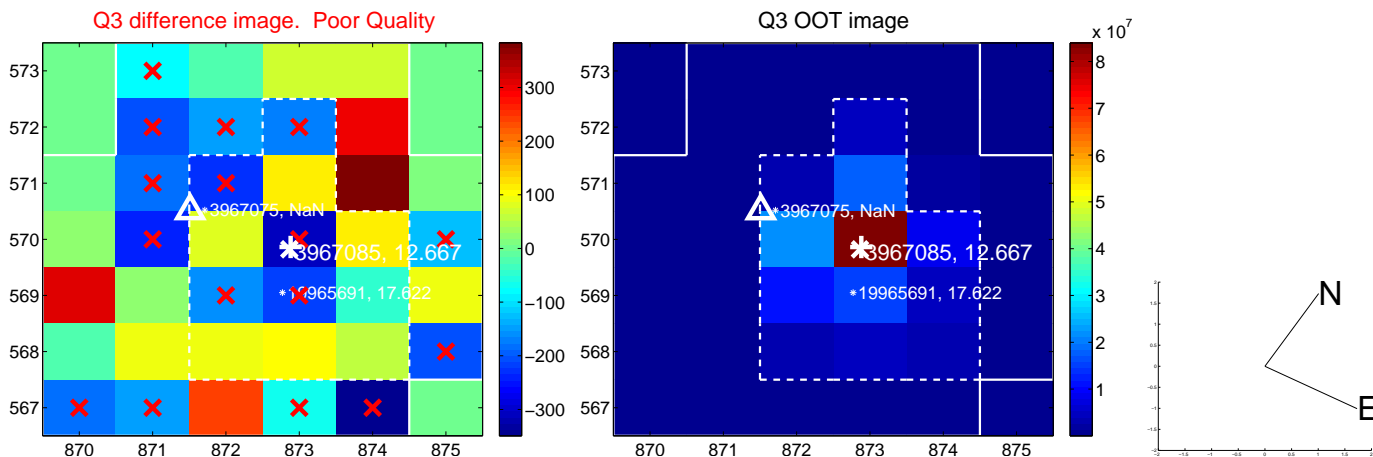
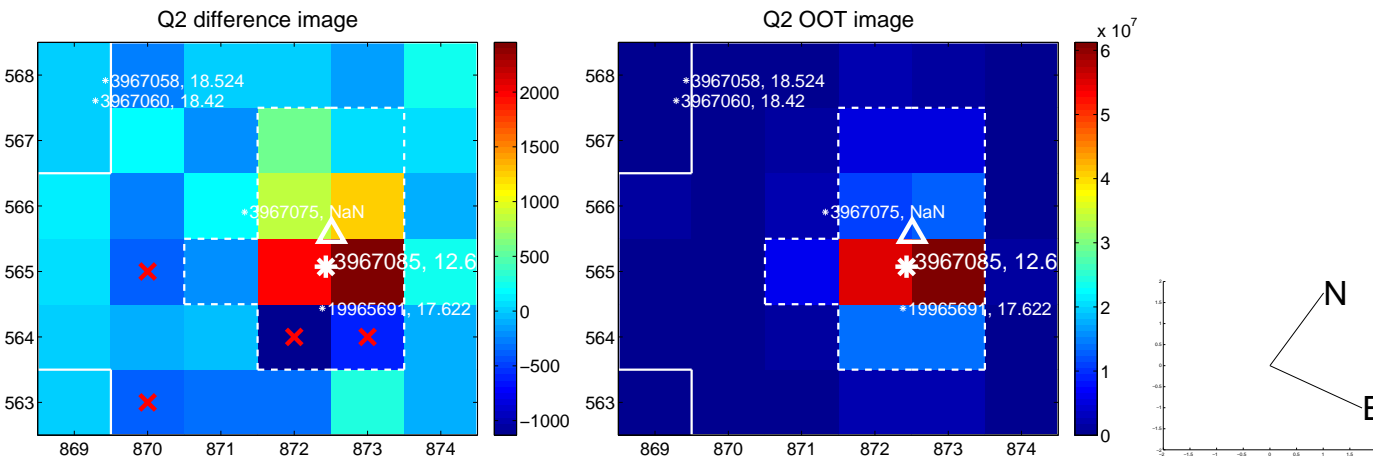
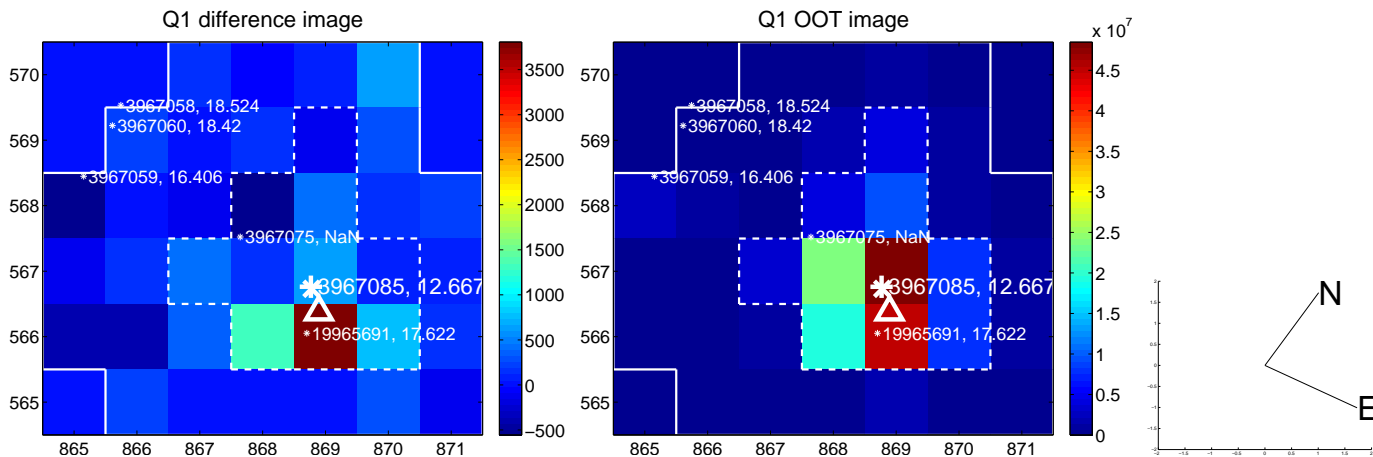


offset from photometric centroids

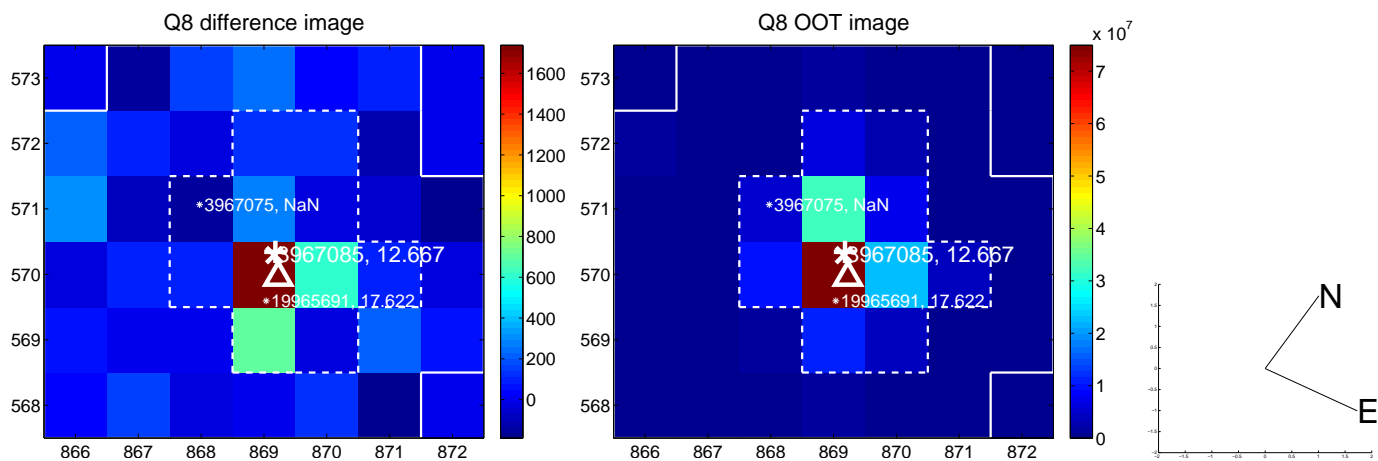
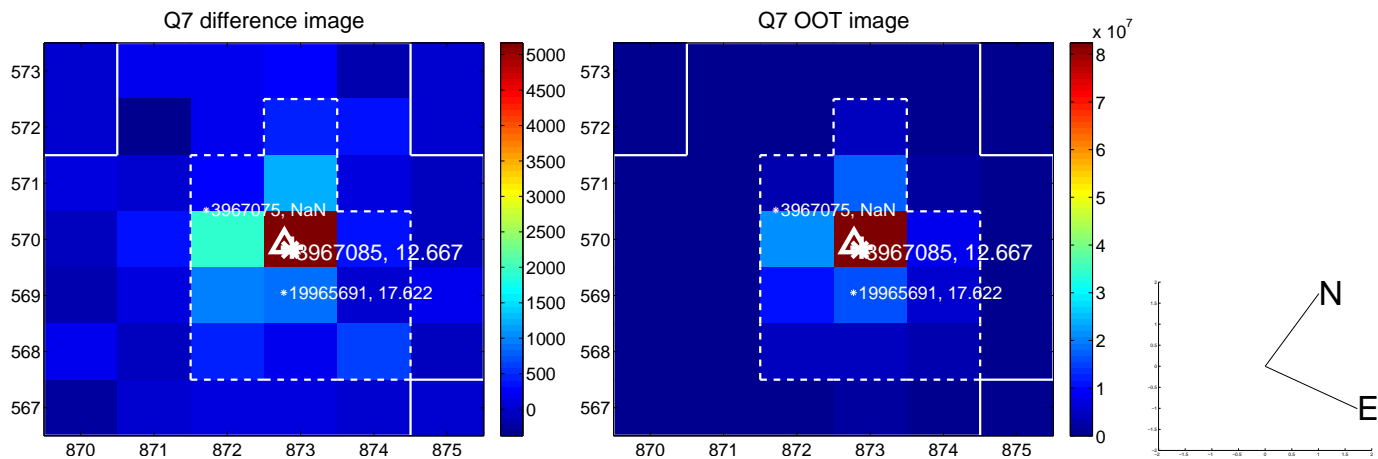
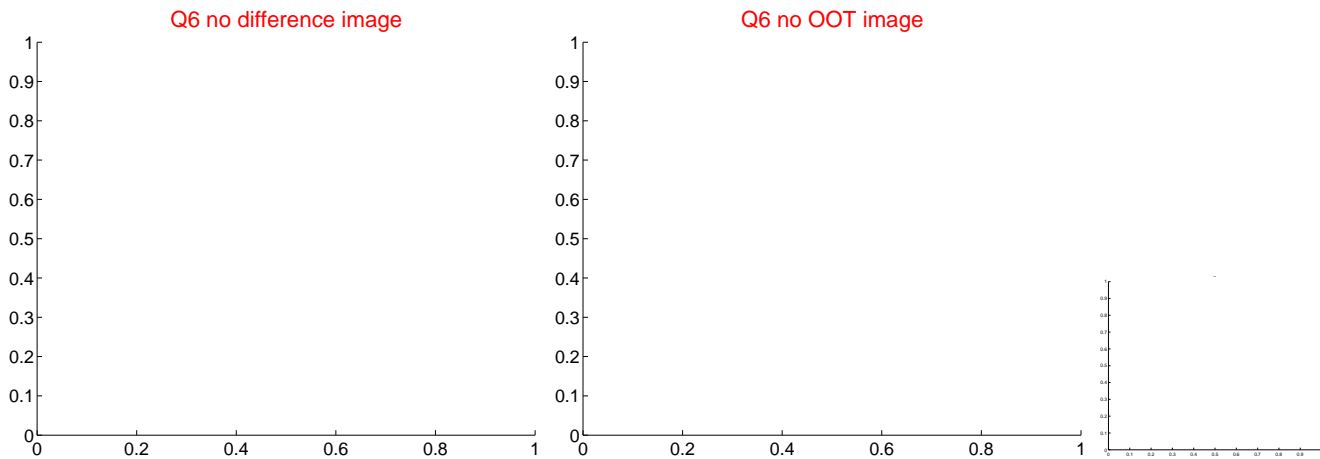
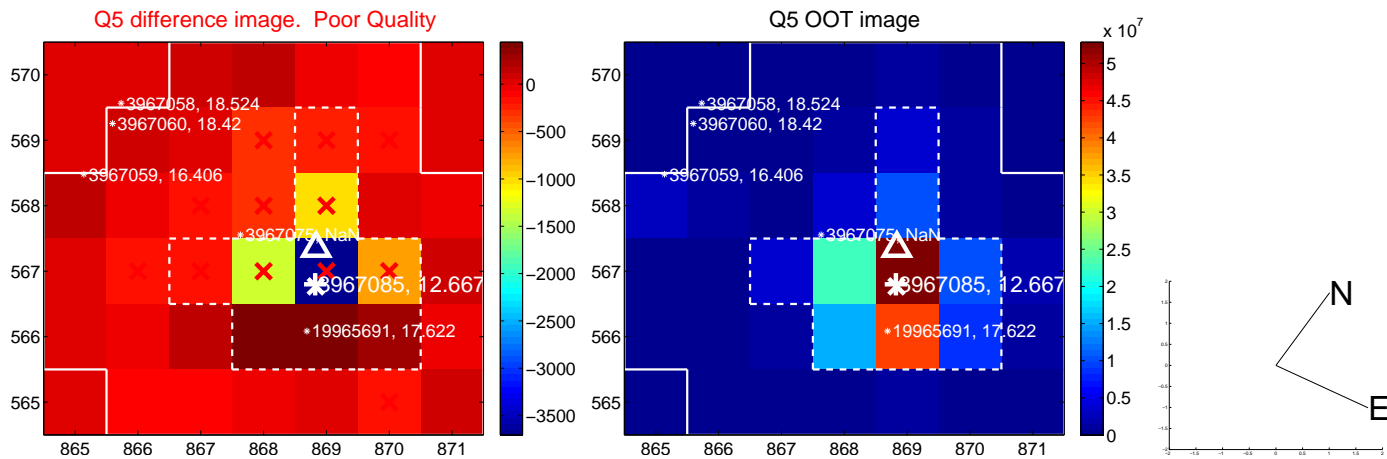


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

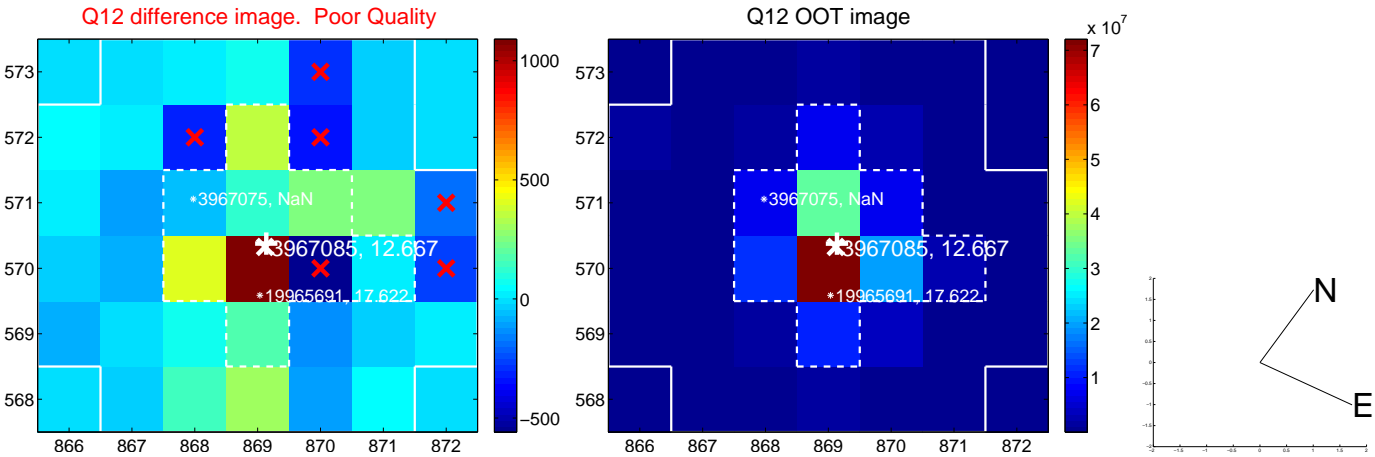
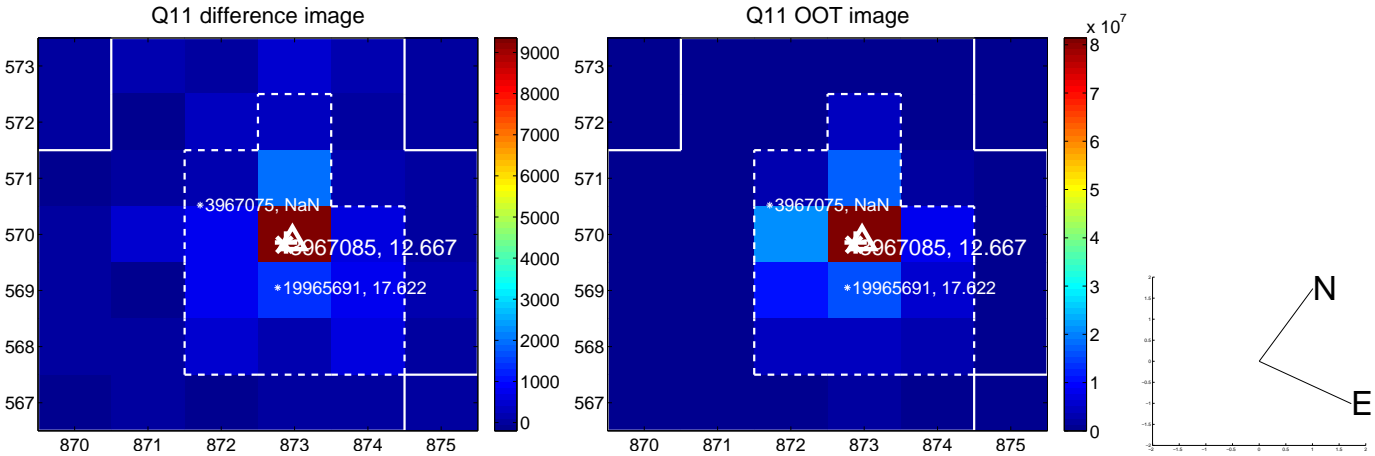
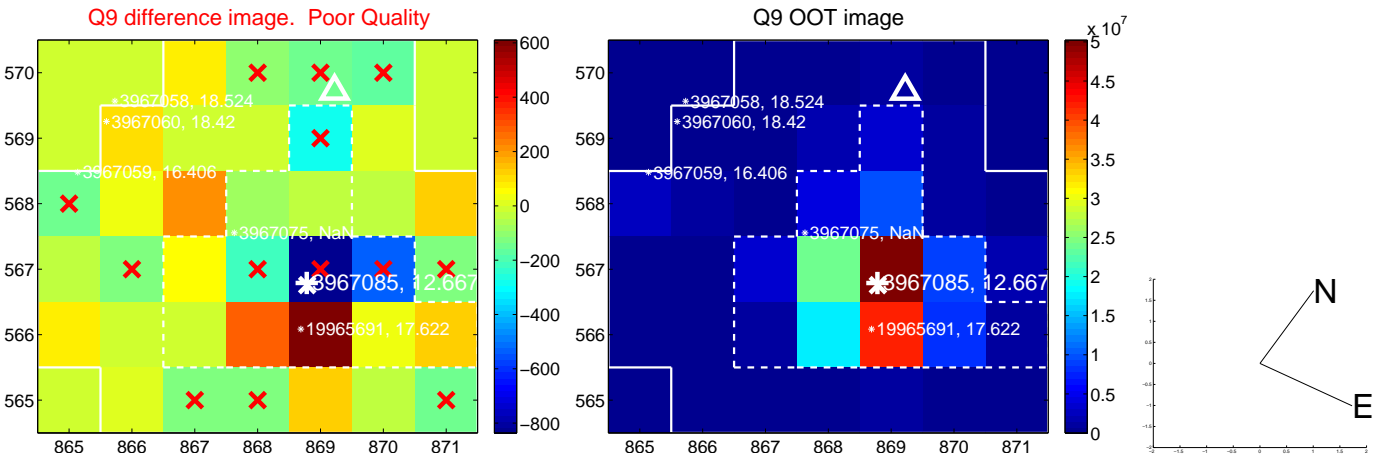
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



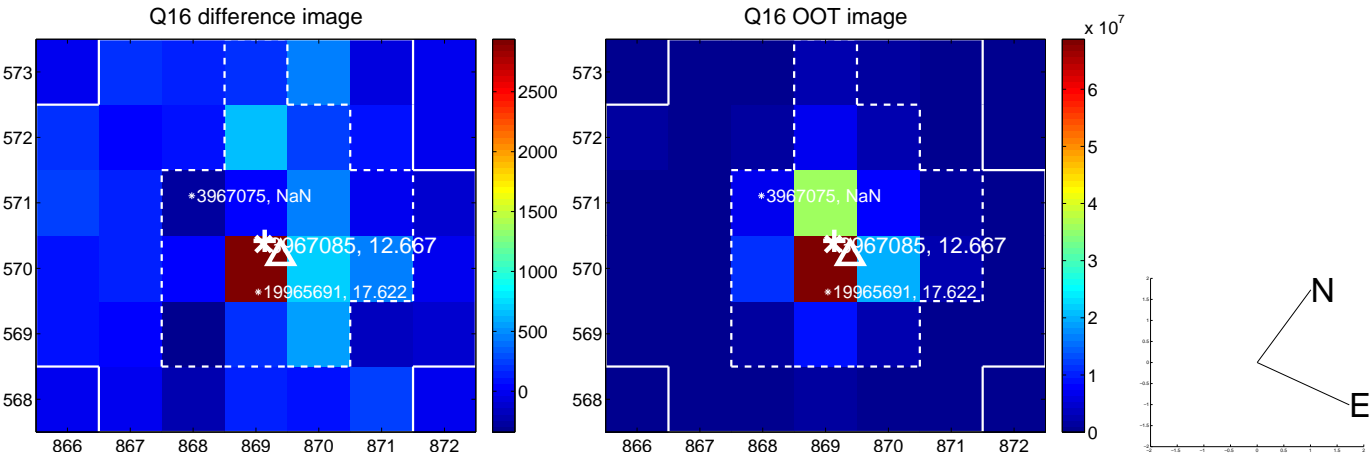
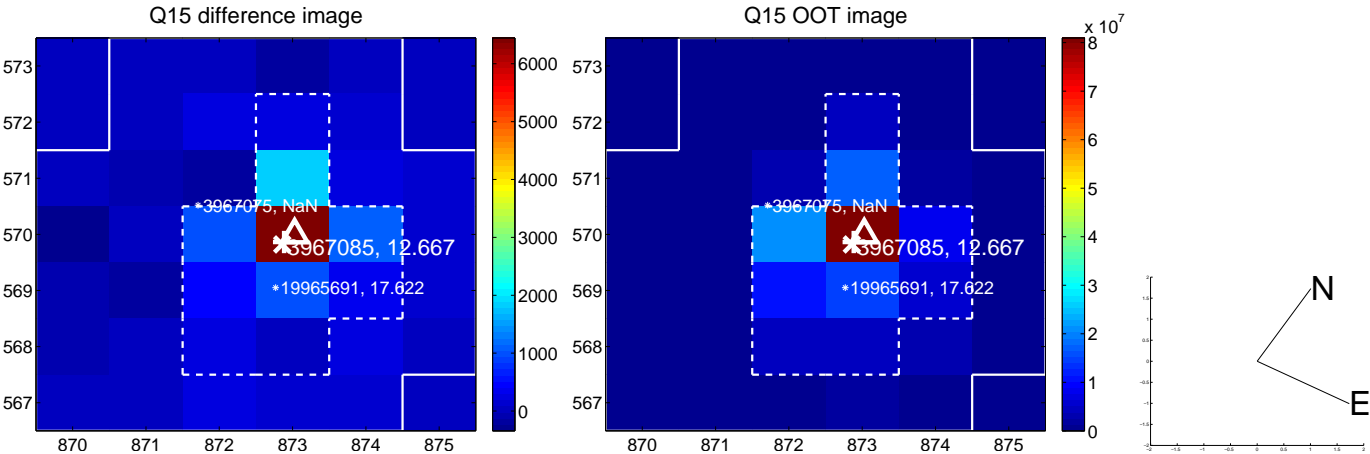
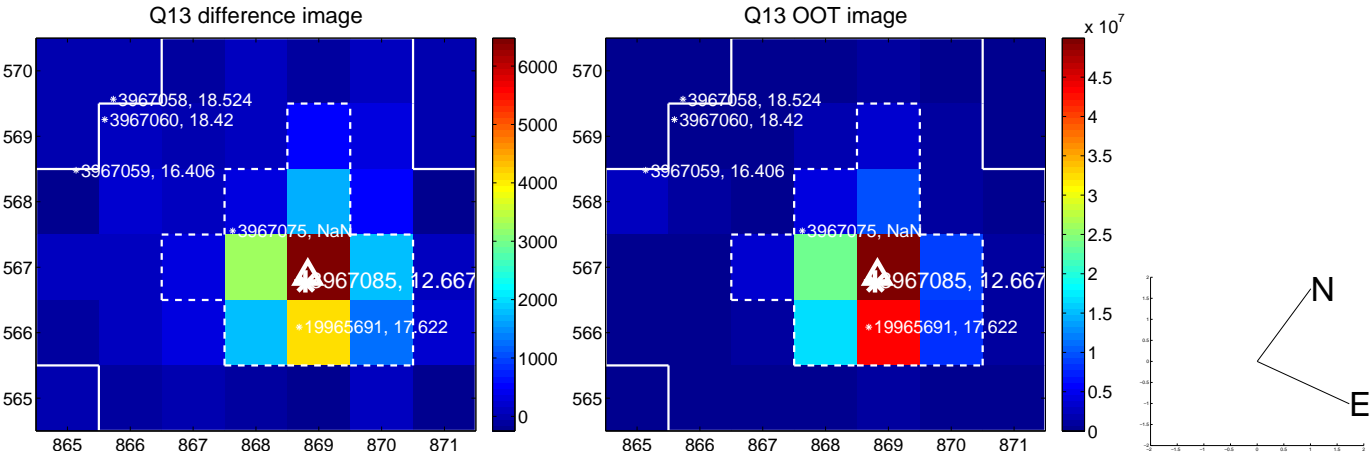
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



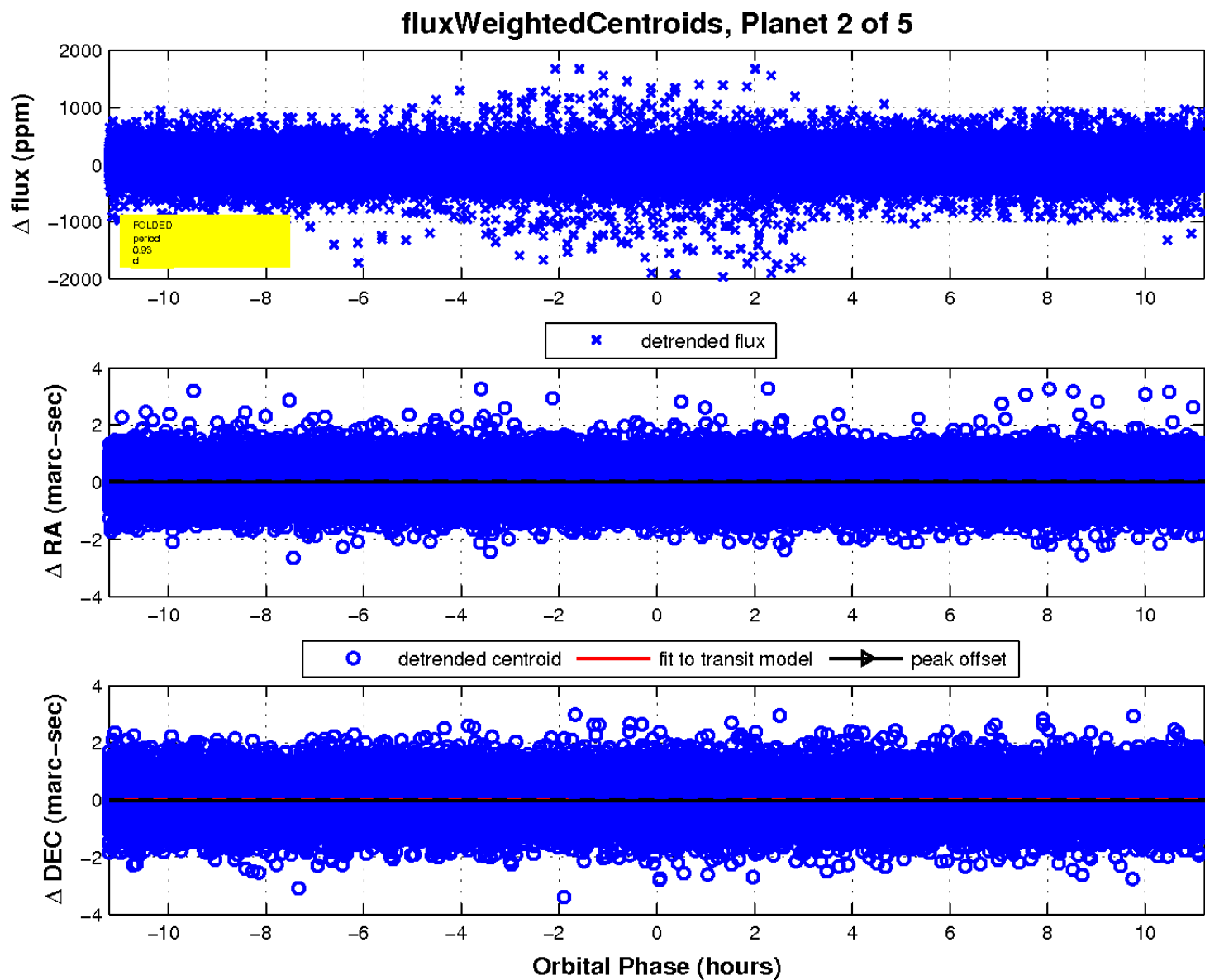
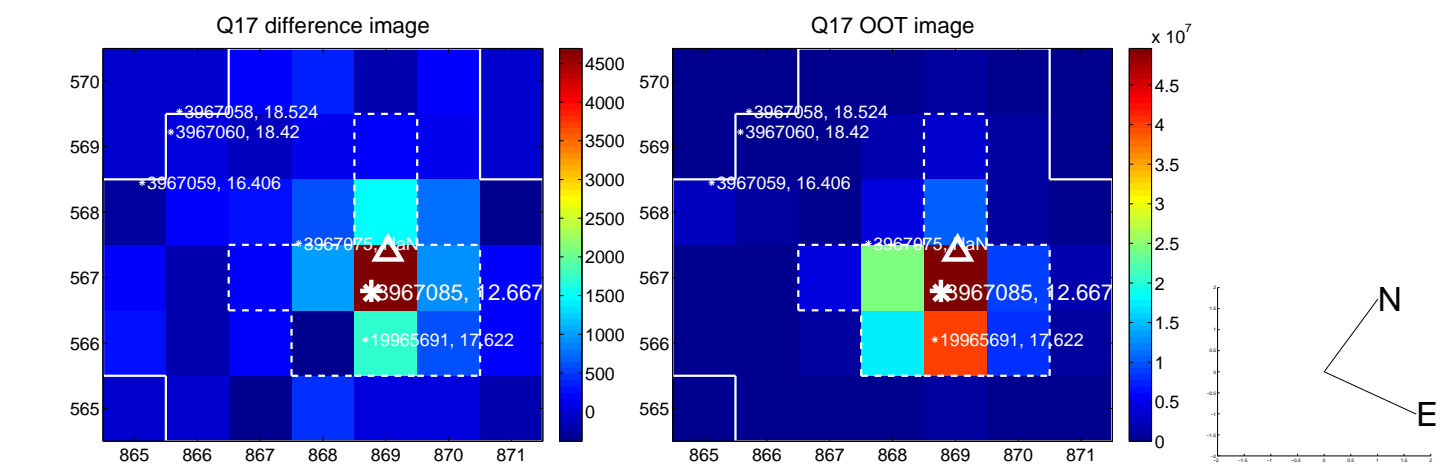
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

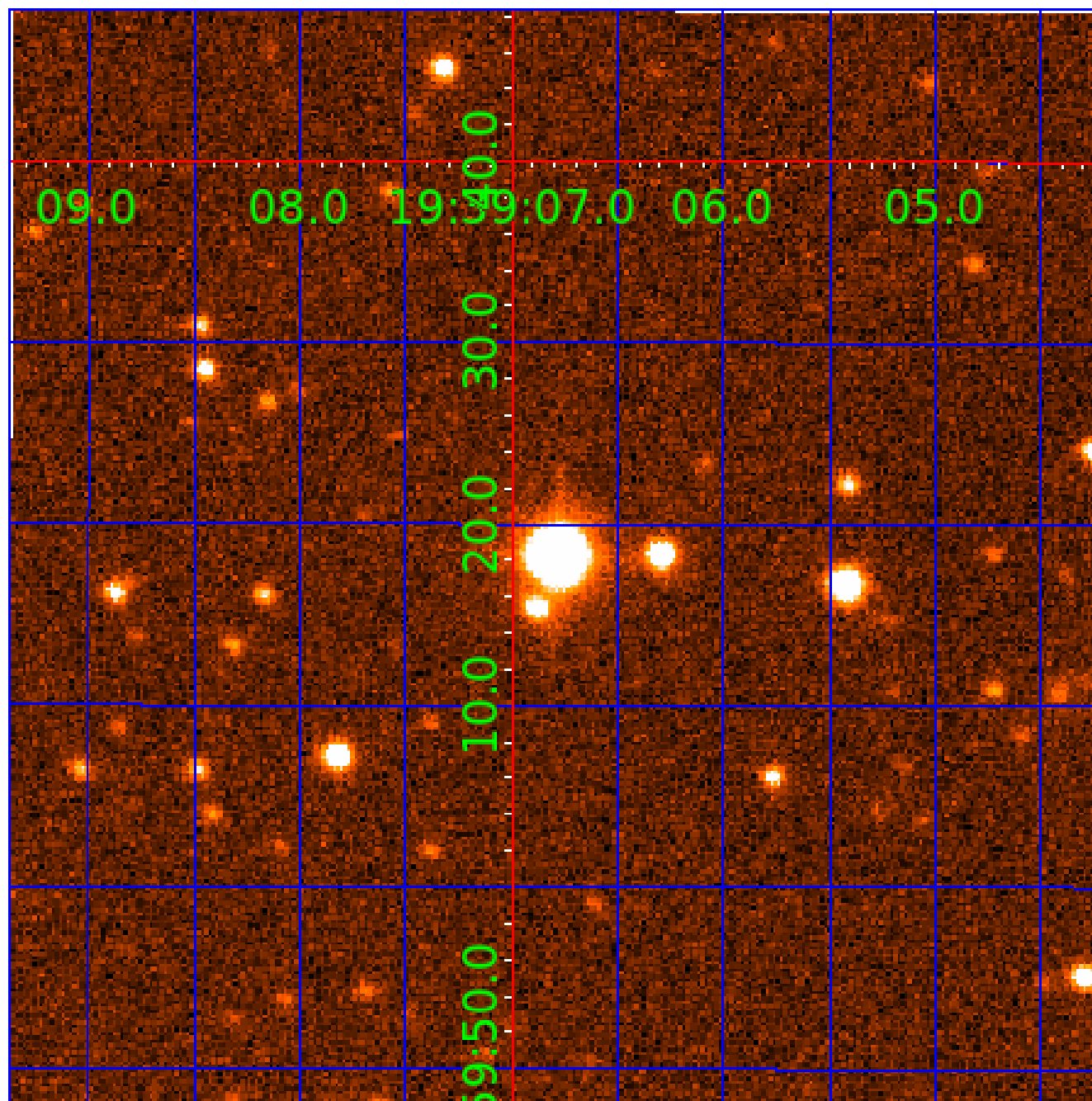


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003967085

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003967085-01	OBS	No	286.497900	134.445214	187.0	1.828	11.0	2.2	11.65	6869	17.52	161.86
003967085-02	OBS	No	0.934856	132.177801	34.0	3.814	8.6	9.2	11.65	6869	7.92	0.00
003967085-05	OBS	No	192.801450	229.678310	332.4	9.068	9.5	7.2	11.65	6869	23.16	274.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003967085-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003967085-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003967085-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

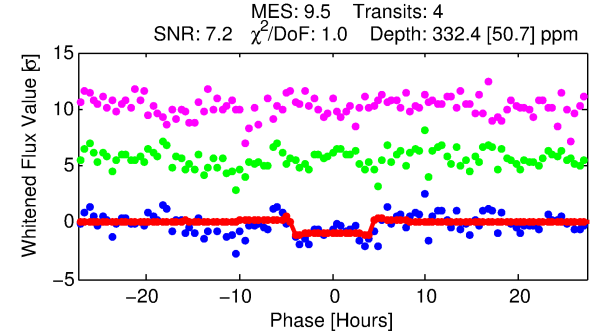
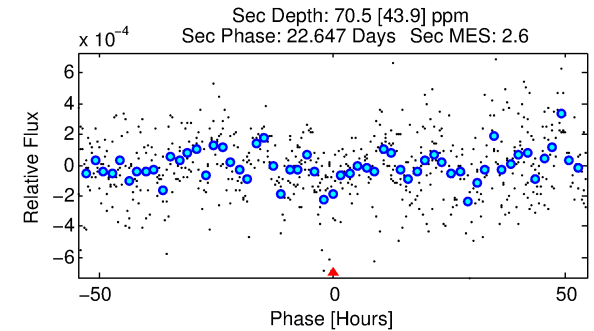
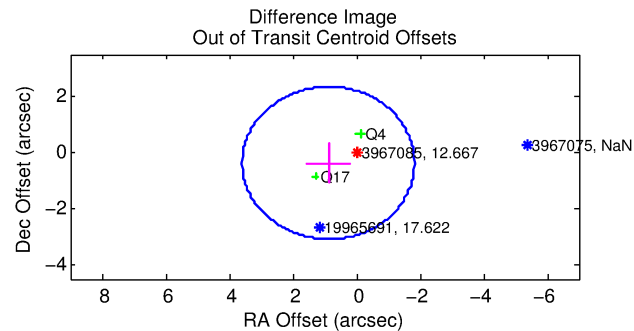
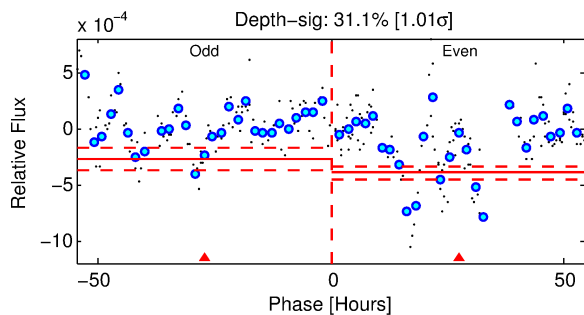
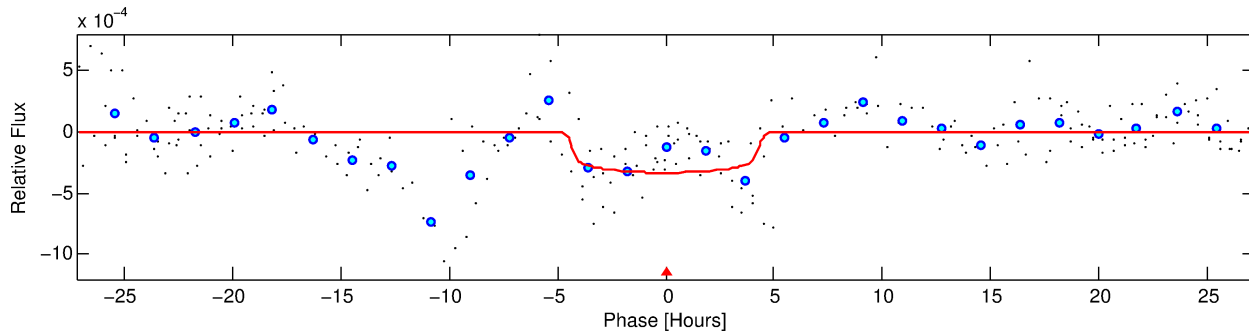
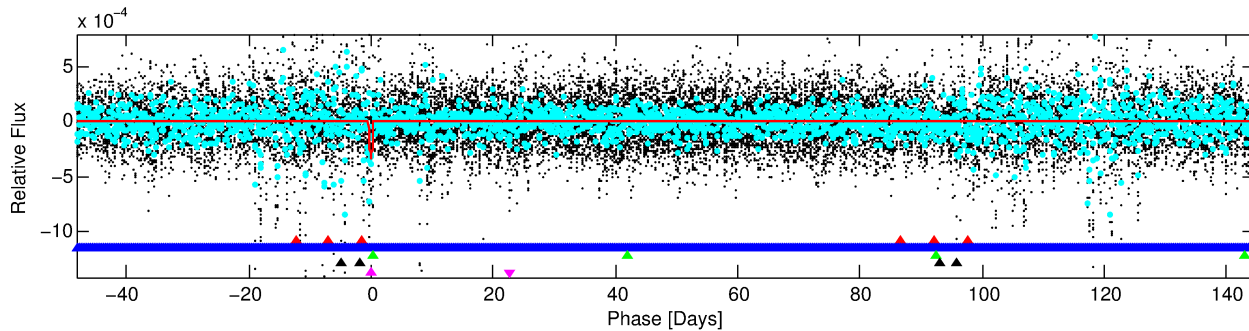
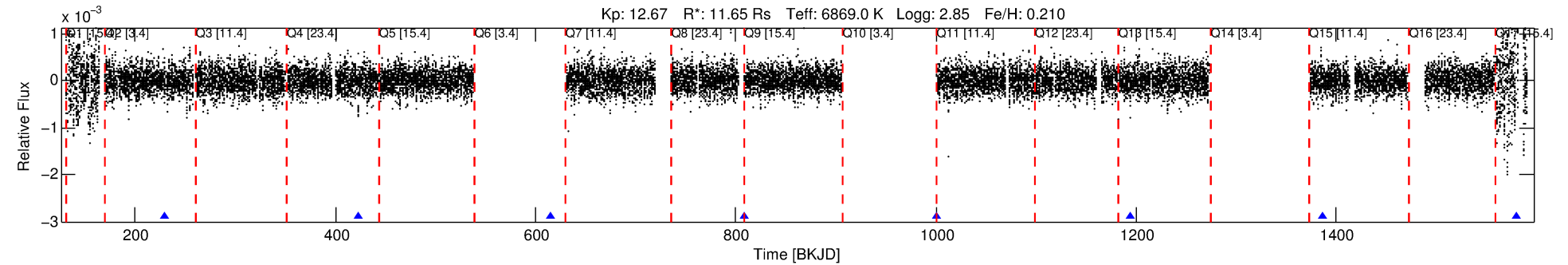
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003967085-05

No Significant Match Found

DV One-Page Summary

KIC: 3967085 Candidate: 5 of 5 Period: 192.801 d



DV Fit Results:

Period = 192.80145 [0.00298] d
Epoch = 229.6783 [0.0107] BKJD
Rp/R* = 0.0182 [0.0063]
a/R* = 109.62 [201.61]
b = 0.76 [1.02]
Seff = 274.47 [330.26]
Teq = 1038 [312] K
Rp = 23.16 [17.19] Re
a = 0.9930 [0.7016] AU
Ag = 71.22 [107.60] [0.65 σ]
Teffp = 4662 [1099] K [3.17 σ]

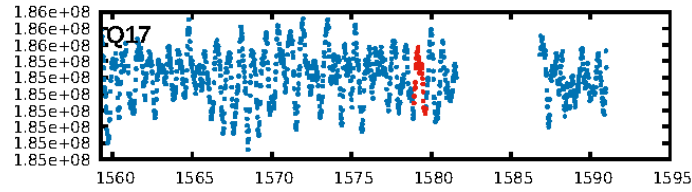
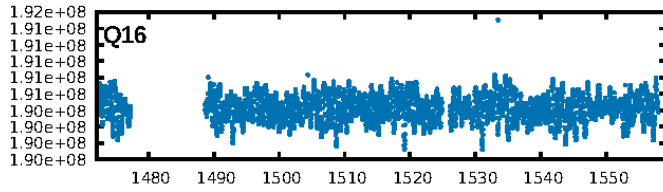
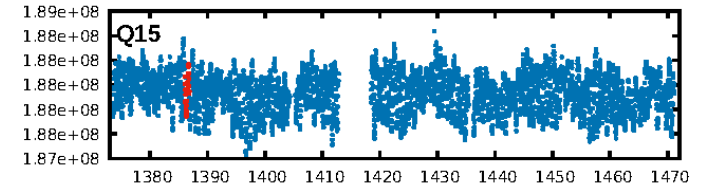
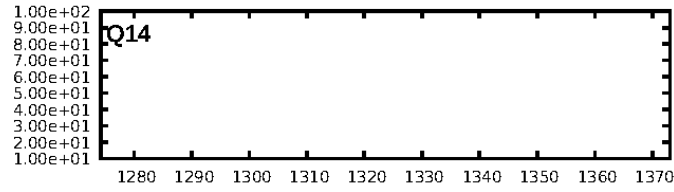
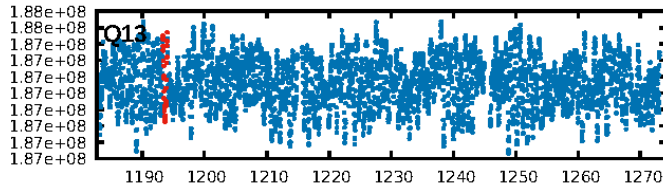
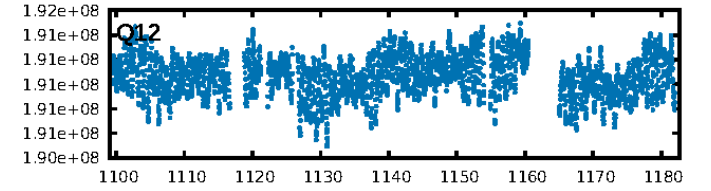
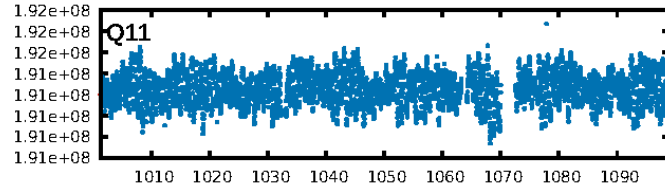
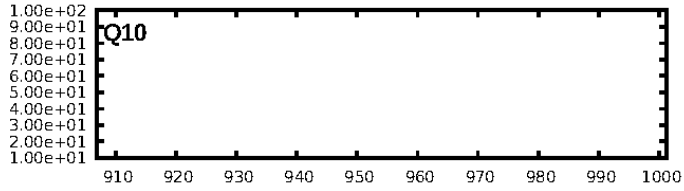
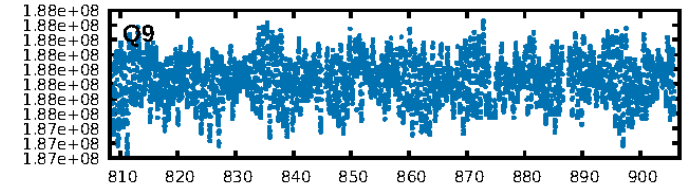
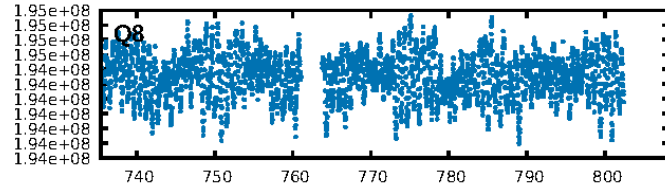
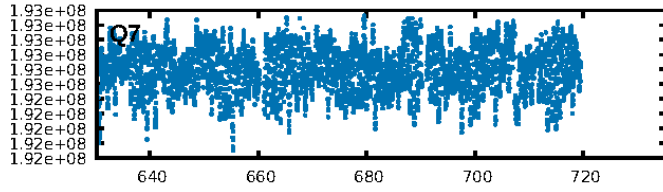
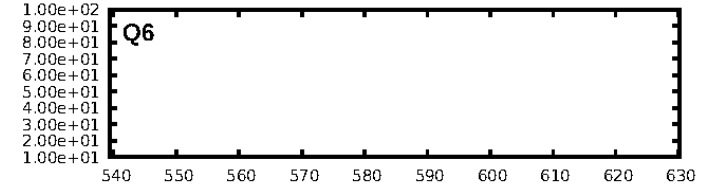
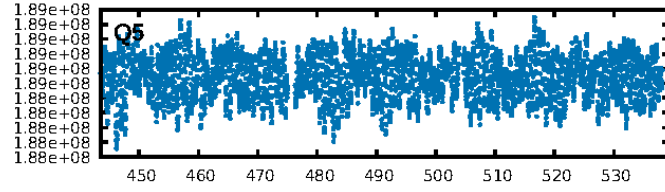
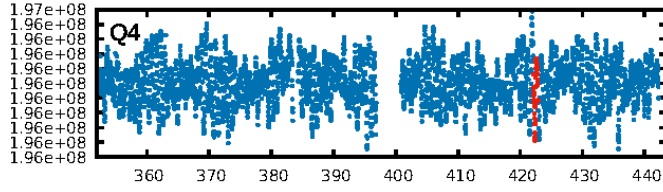
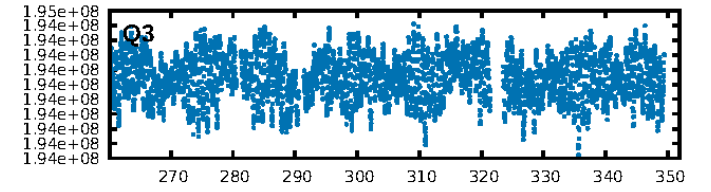
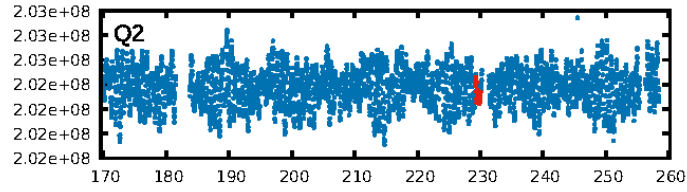
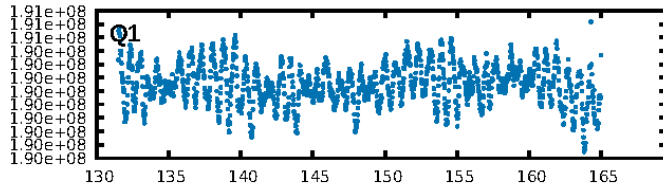
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [468.10 σ]
LongPeriod-sig: 100.0% [243.10 σ]
ModelChiSquare2-sig: 28.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.53e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -4.749
Centroid-sig: 21.6%
Centroid-so: 0.815 arcsec [1.30 σ]
OotOffset-rm: 0.956 arcsec [1.06 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 0.852 arcsec [1.20 σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/2]

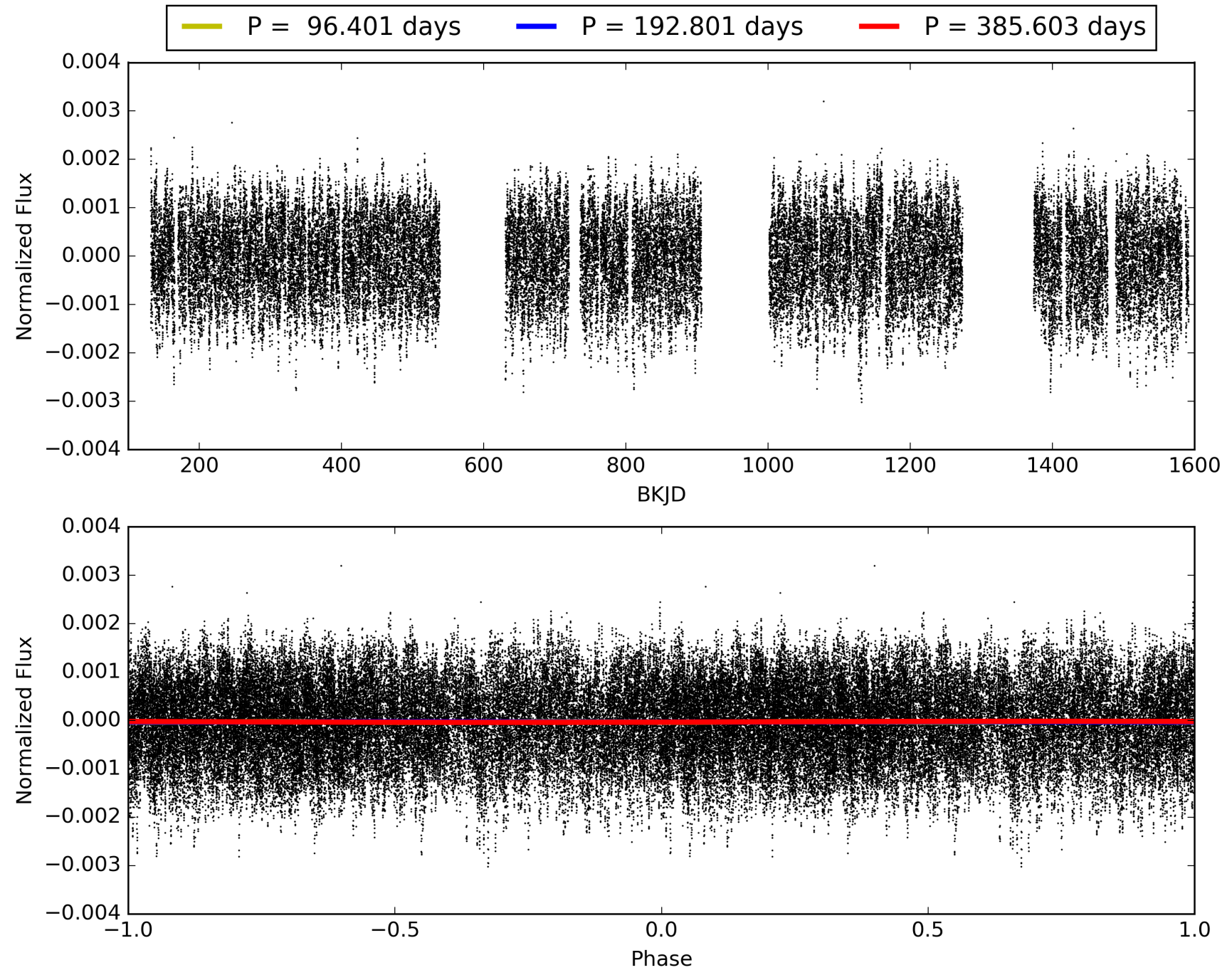
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:14:34 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003967085-05, PDC Light Curves

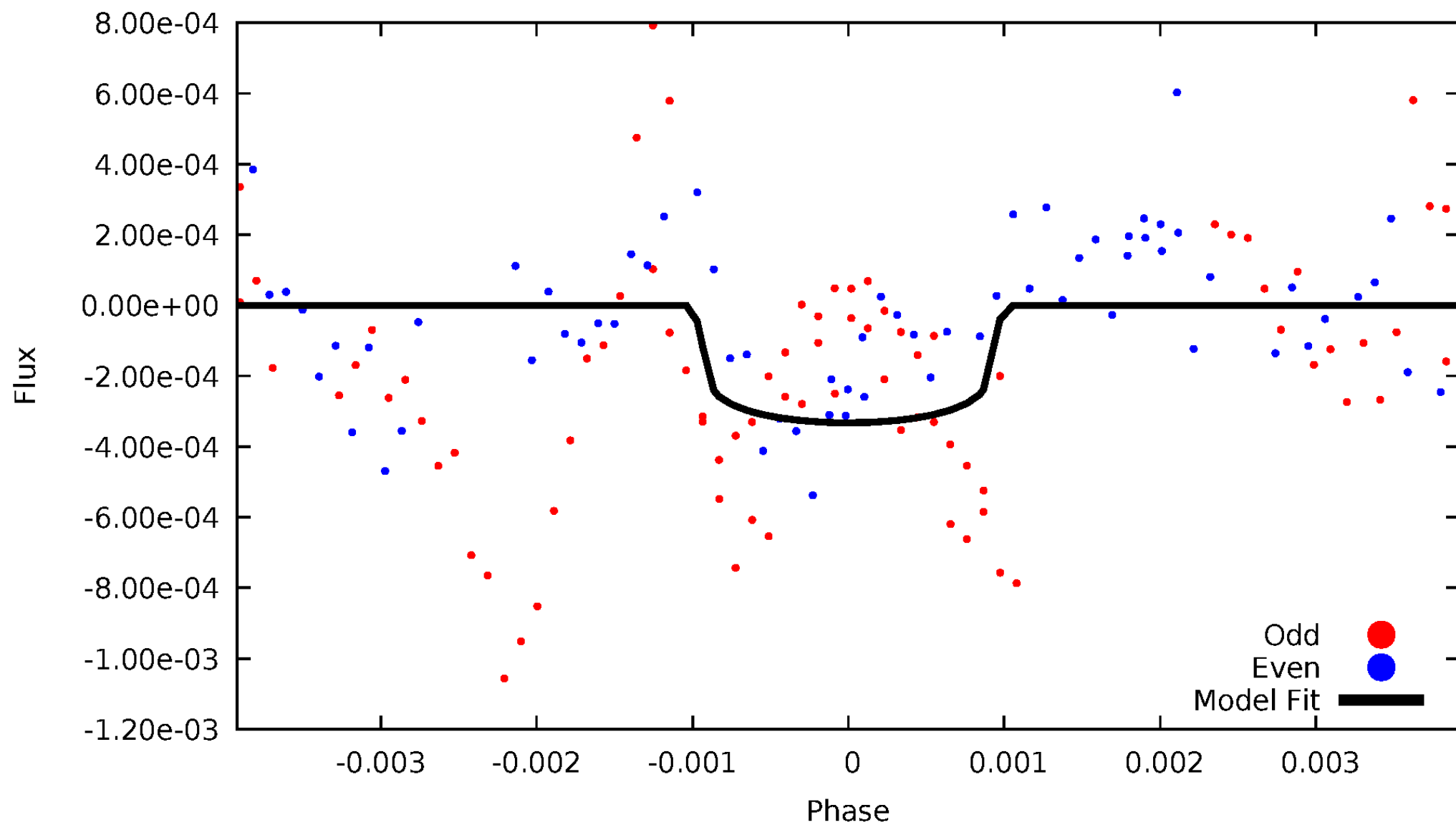


TCE 003967085-05



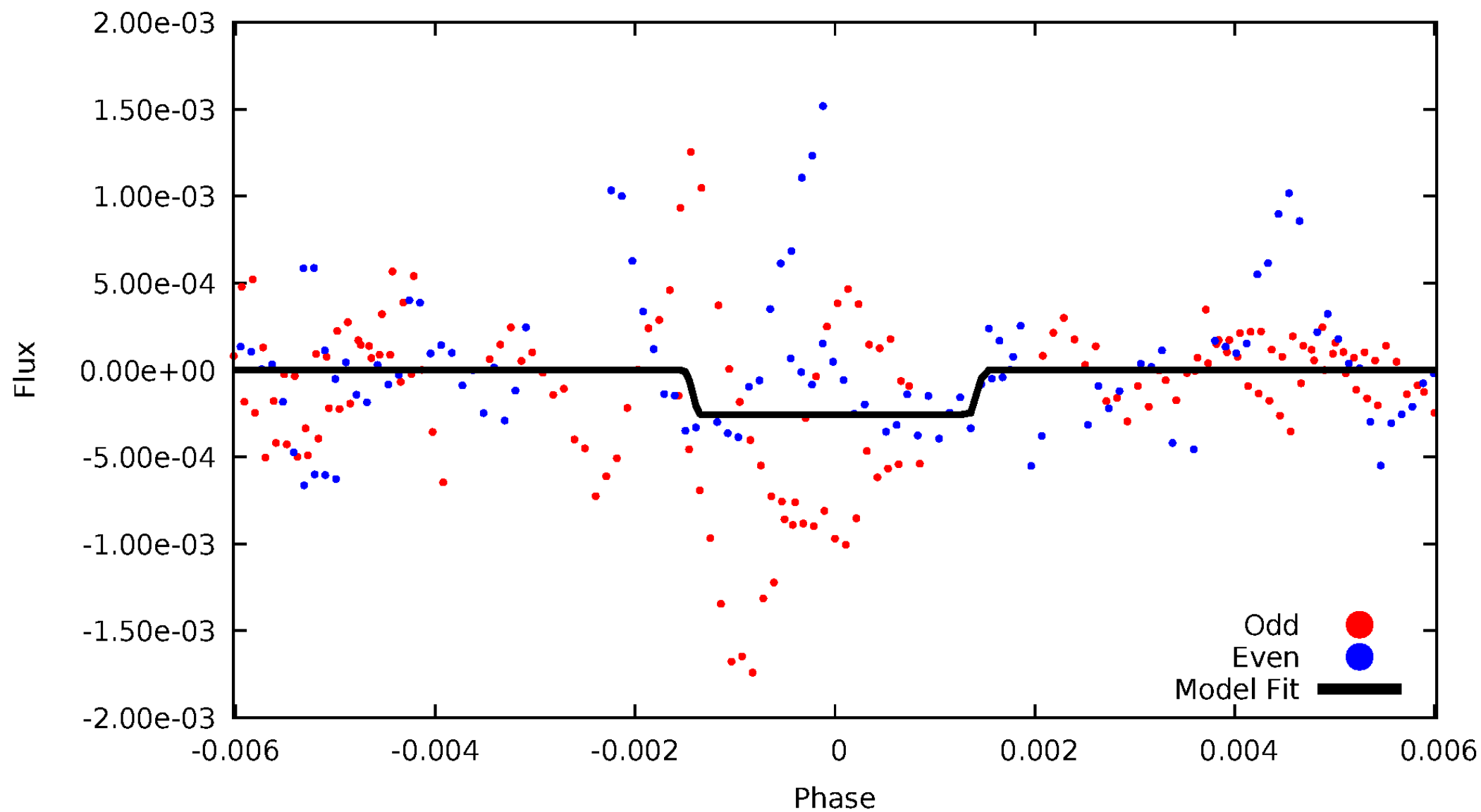
DV Odd/Even

TCE 003967085-05



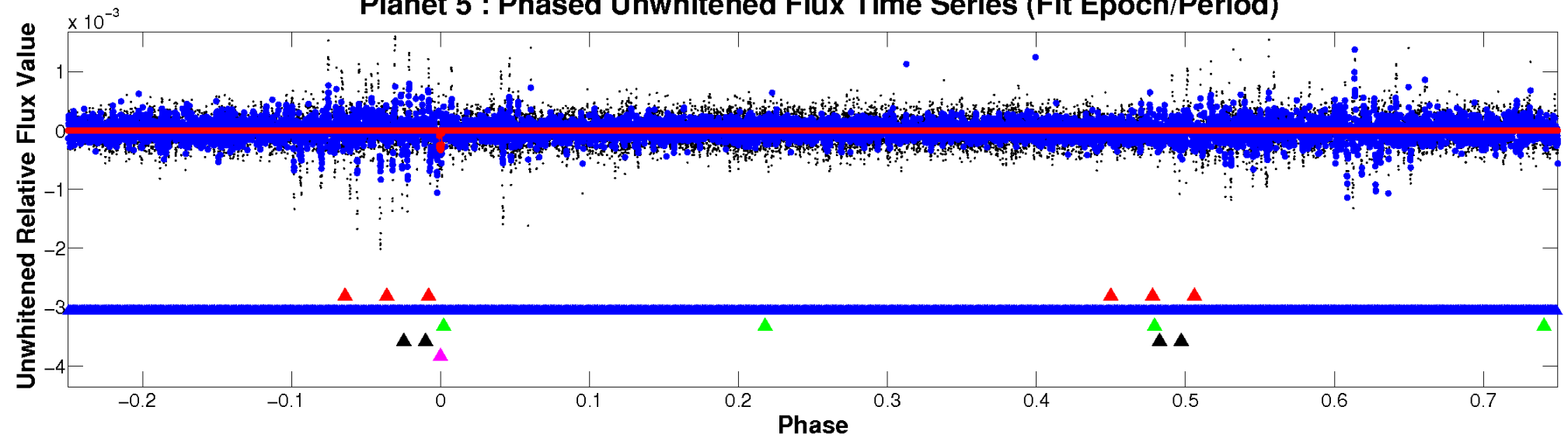
ALT Odd/Even

TCE 003967085-05

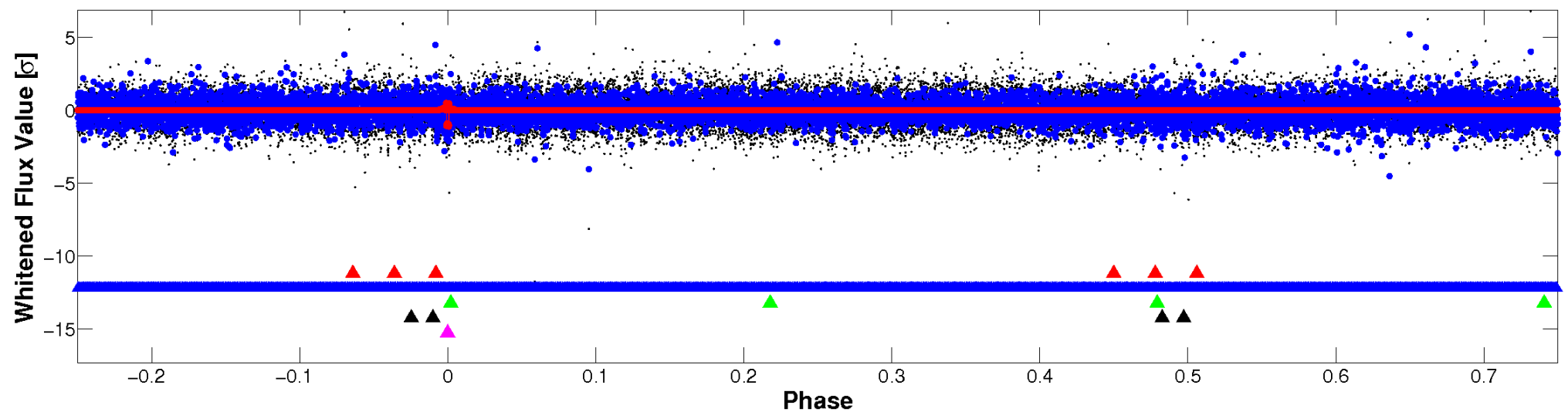


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

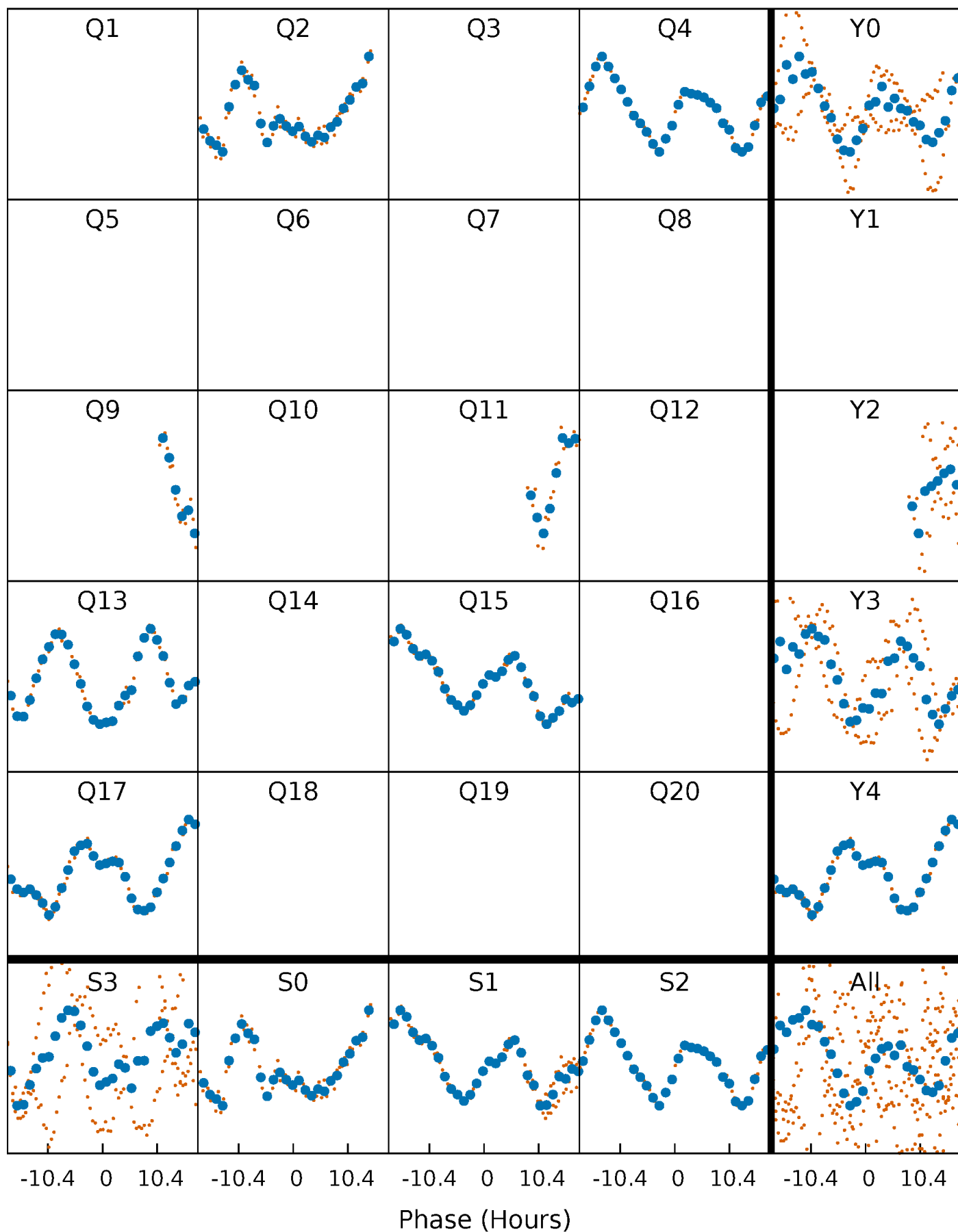


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



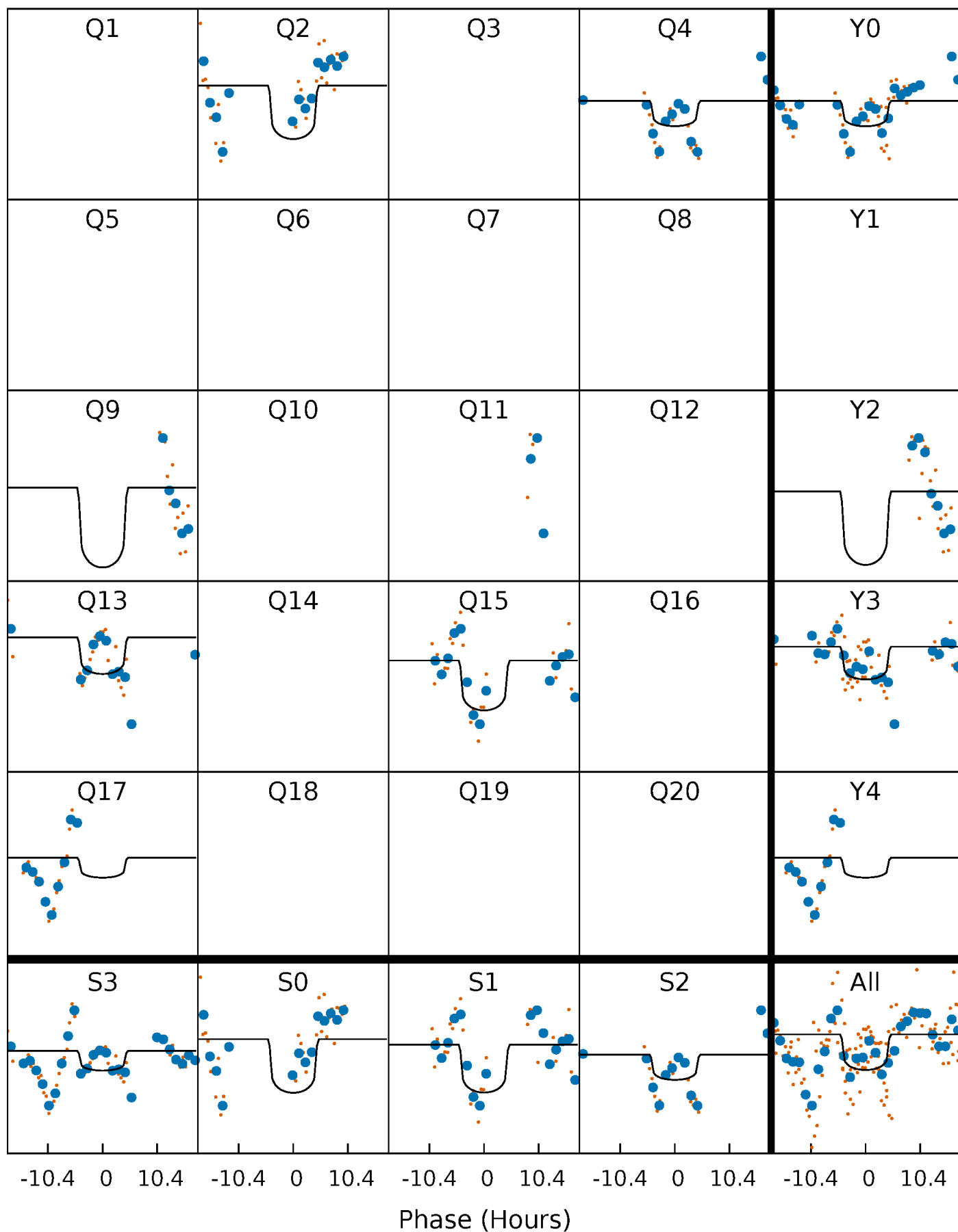
PDC Quarter-Phased Transit Curves

TCE 003967085-05 $P=192.801450$ Days $T_0=229.678310$ (BKJD)



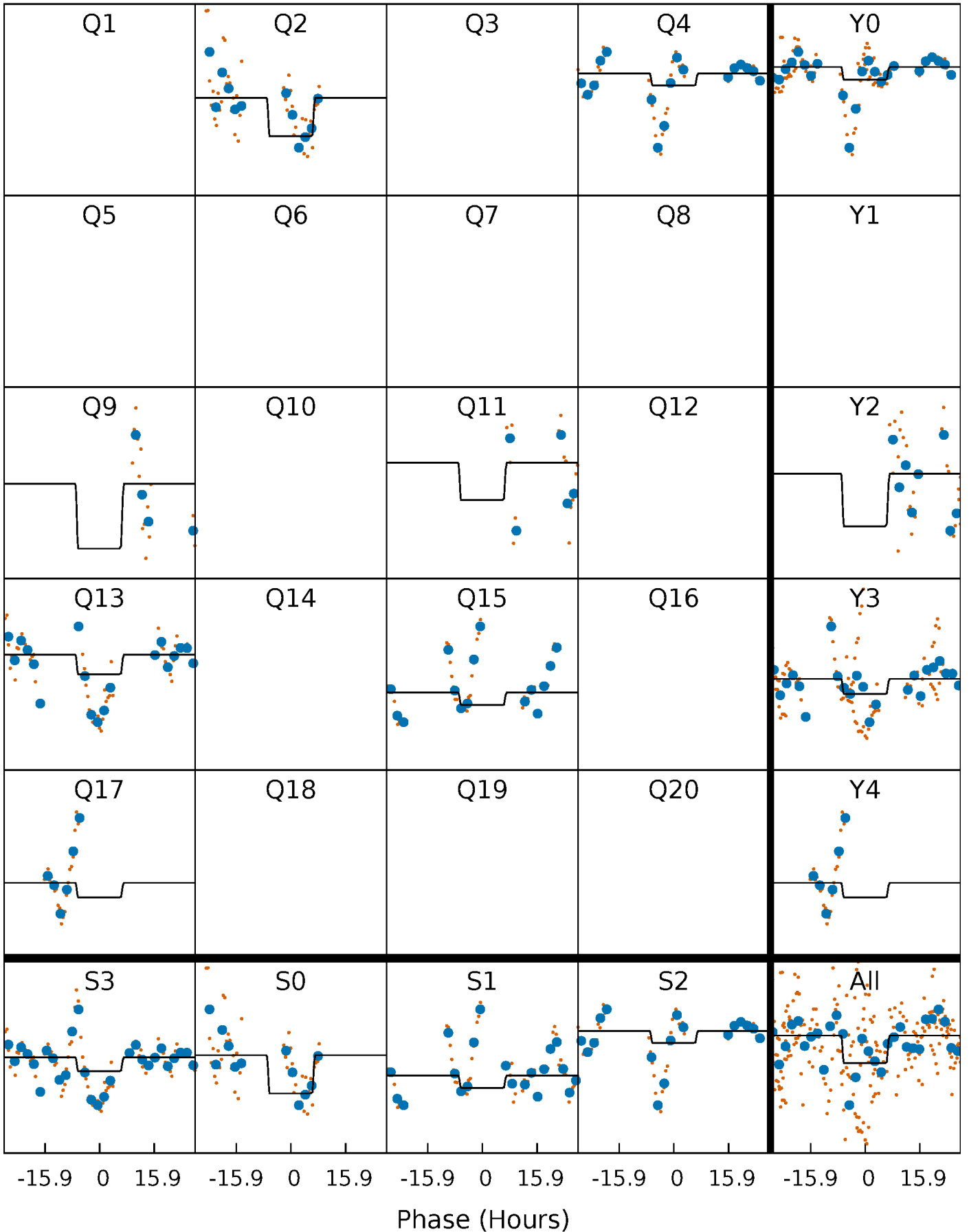
DV Quarter-Phased Transit Curves

TCE 003967085-05 $P=192.801450$ Days $T_0=229.678310$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

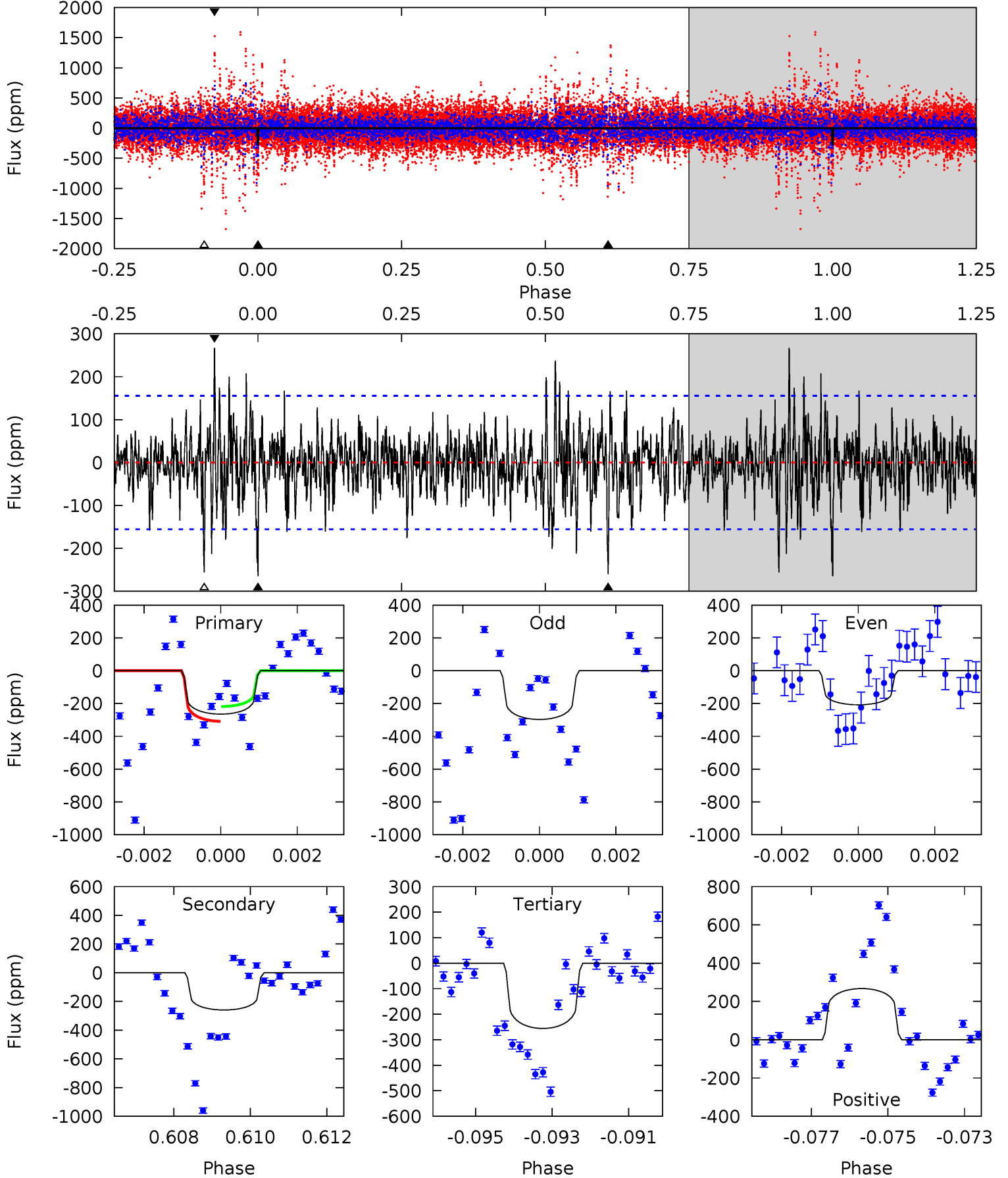
TCE 003967085-05 $P=192.797450$ Days $T_0=229.742658$ (BKJD)



DV Model-Shift Uniqueness Test

003967085-05, P = 192.801450 Days, E = 36.876860 Days

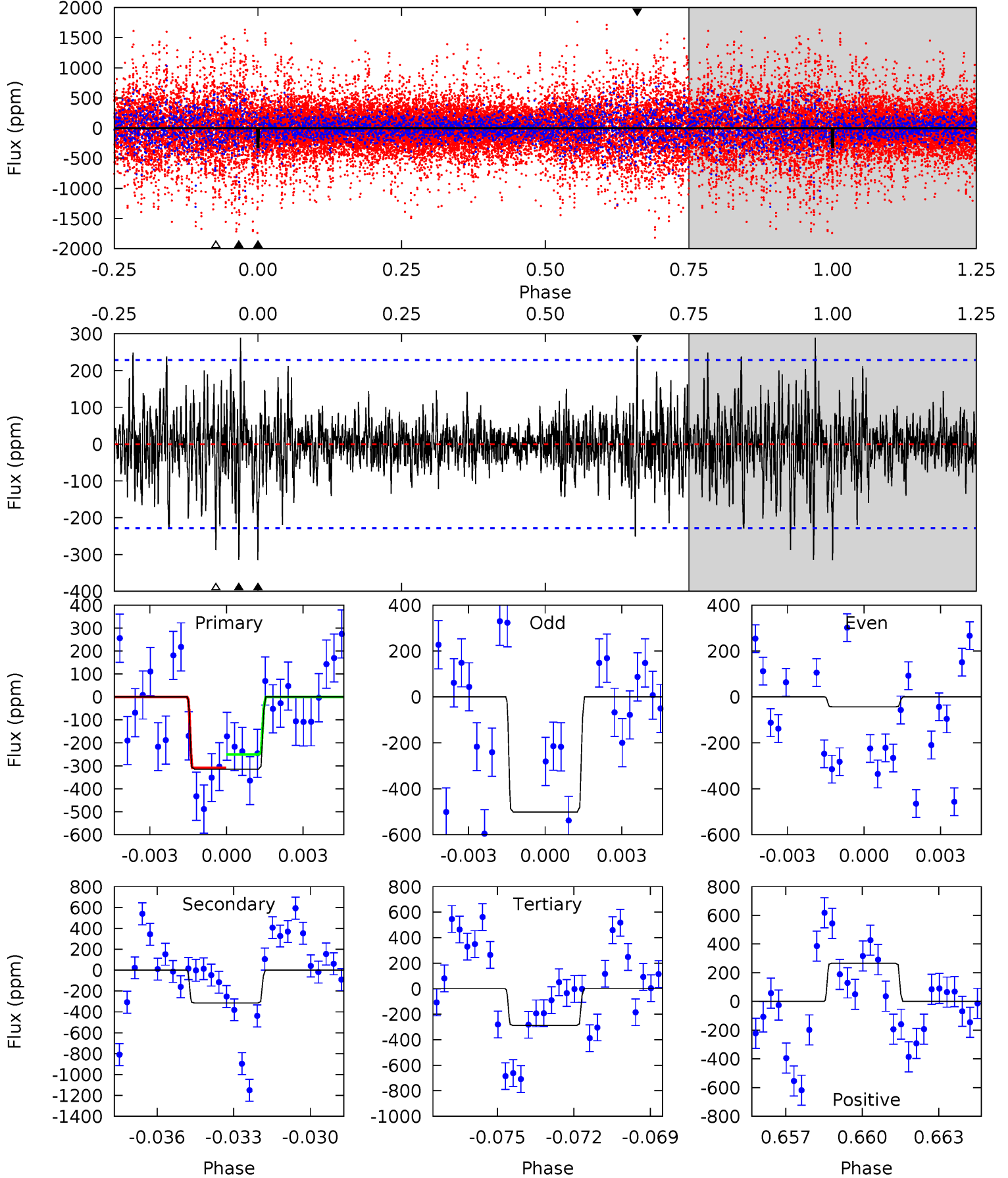
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.07	8.89	8.76	9.16	5.32	3.09	1.98	0.31	-0.09	0.13	-0.27	1.42	1.00	0.50	1.53



Alt Model-Shift Uniqueness Test

003967085-05, P = 192.797450 Days, E = 36.945208 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.23	7.21	6.61	6.12	5.25	2.97	1.39	0.62	1.11	0.60	1.09	5.42	-0.49	0.48	0.68



Stellar Parameters For KIC 003967085

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6869^{+165}_{-284}	$2.851^{+0.722}_{-0.038}$	$0.210^{+0.200}_{-0.250}$	$11.648^{+0.806}_{-7.659}$	$3.510^{+0.070}_{-1.421}$	$0.003^{+0.045}_{-0.000}$
	+2%/-4%	+25%/-1%	+95%/-119%	+7%/-66%	+2%/-40%	+1436%/-14%
Source	PHO1	FLK73	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003967085-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-260 ± 29	$19.31^{+9.45}_{-8.38}$	1362^{+112}_{-225}	6286^{+1691}_{-849}	360^{+713}_{-193}
Alt.	-314 ± 44	$16.18^{+9.25}_{-7.90}$	1365^{+113}_{-257}	7166^{+2710}_{-1164}	592^{+1678}_{-337}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

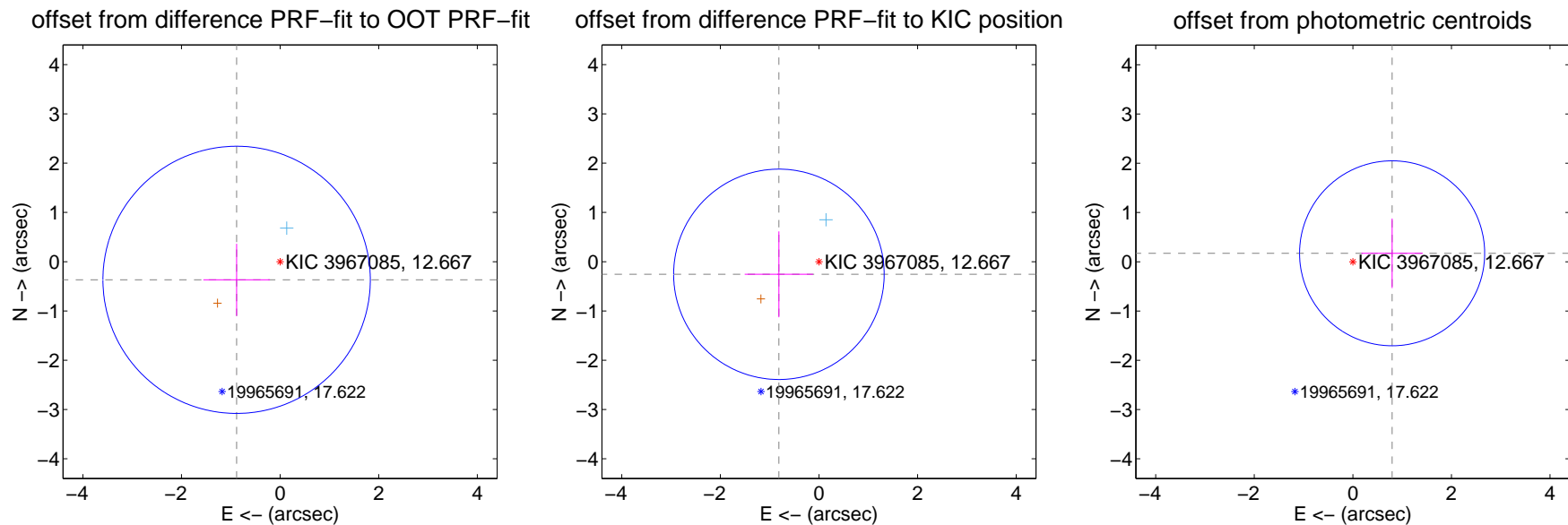
DV Centroid Data

Supplemental centroid analysis for 003967085-05. Kepler magnitude: 12.67. Transit SNR 7.22

There are 1 quarters with good PRF difference image offsets

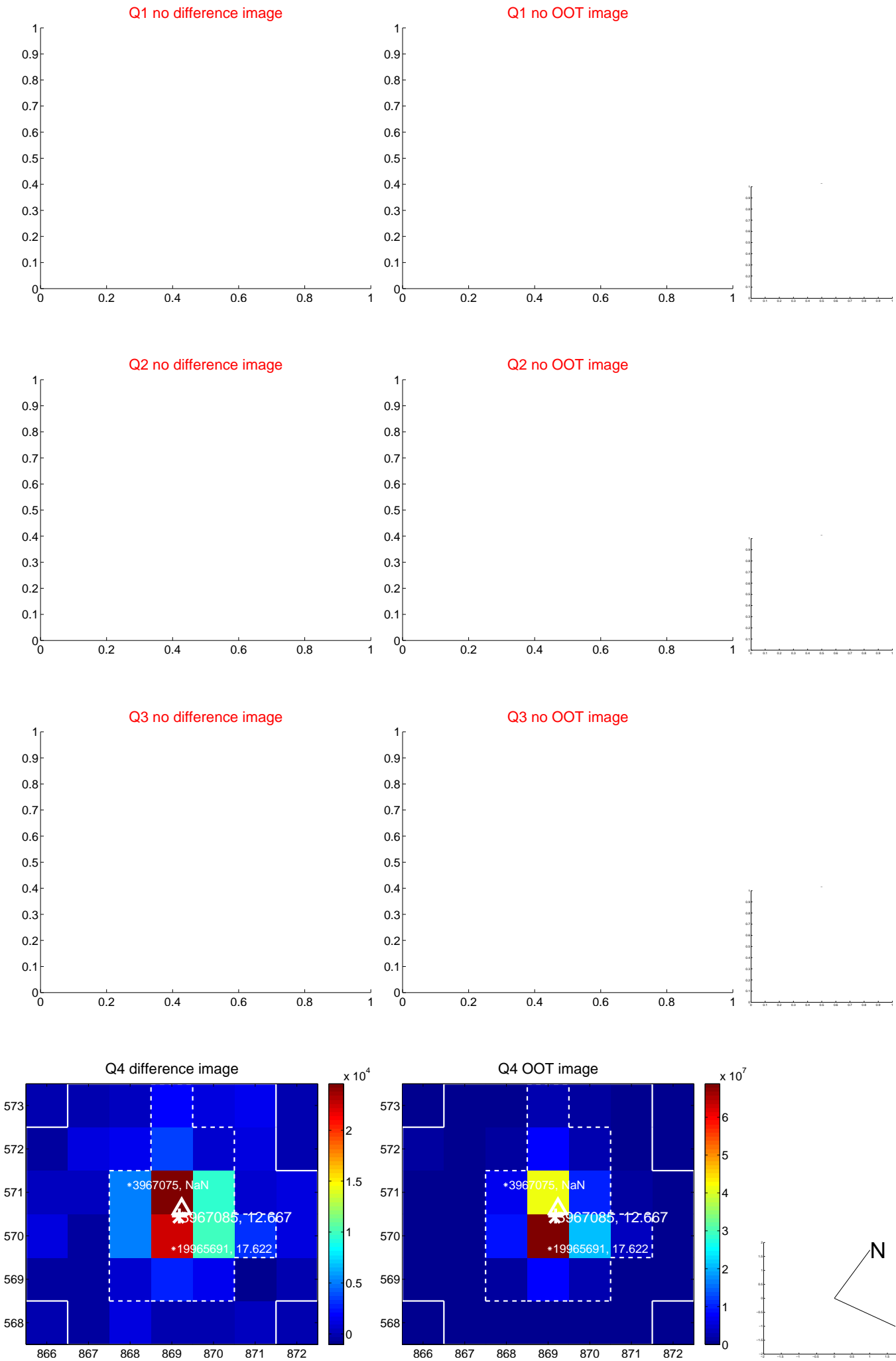
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.956 ± 0.904	1.06	0.882 ± 0.676	-0.368 ± 0.732
PRF-fit source offset from KIC position	0.852 ± 0.712	1.20	0.813 ± 0.694	-0.256 ± 0.871
photometric centroid source offset	0.81 ± 0.63	1.30	-0.80 ± 0.62	0.17 ± 0.71



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



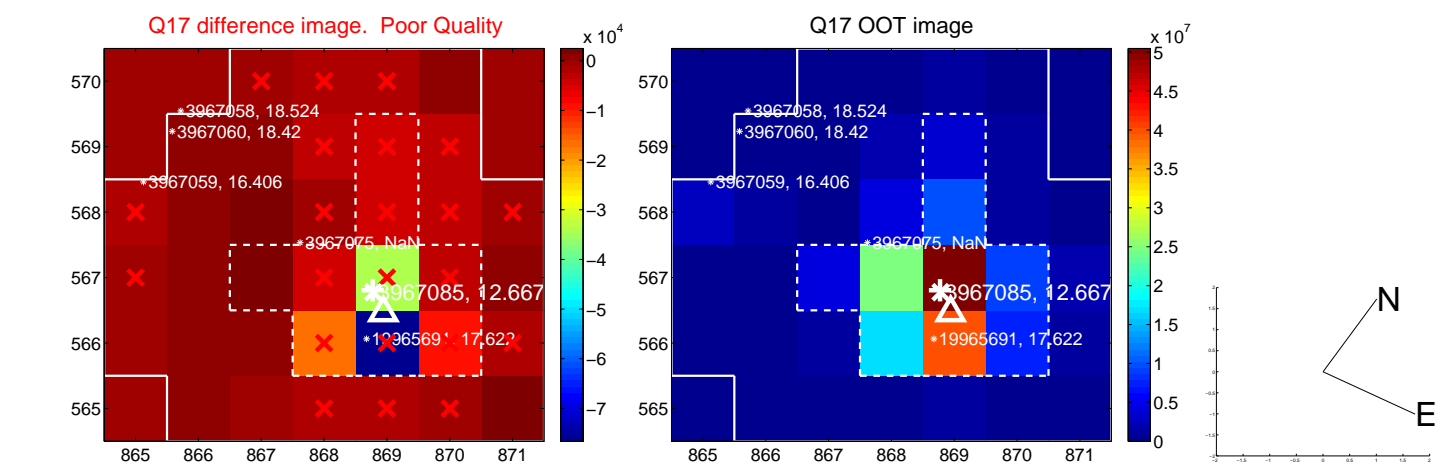
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



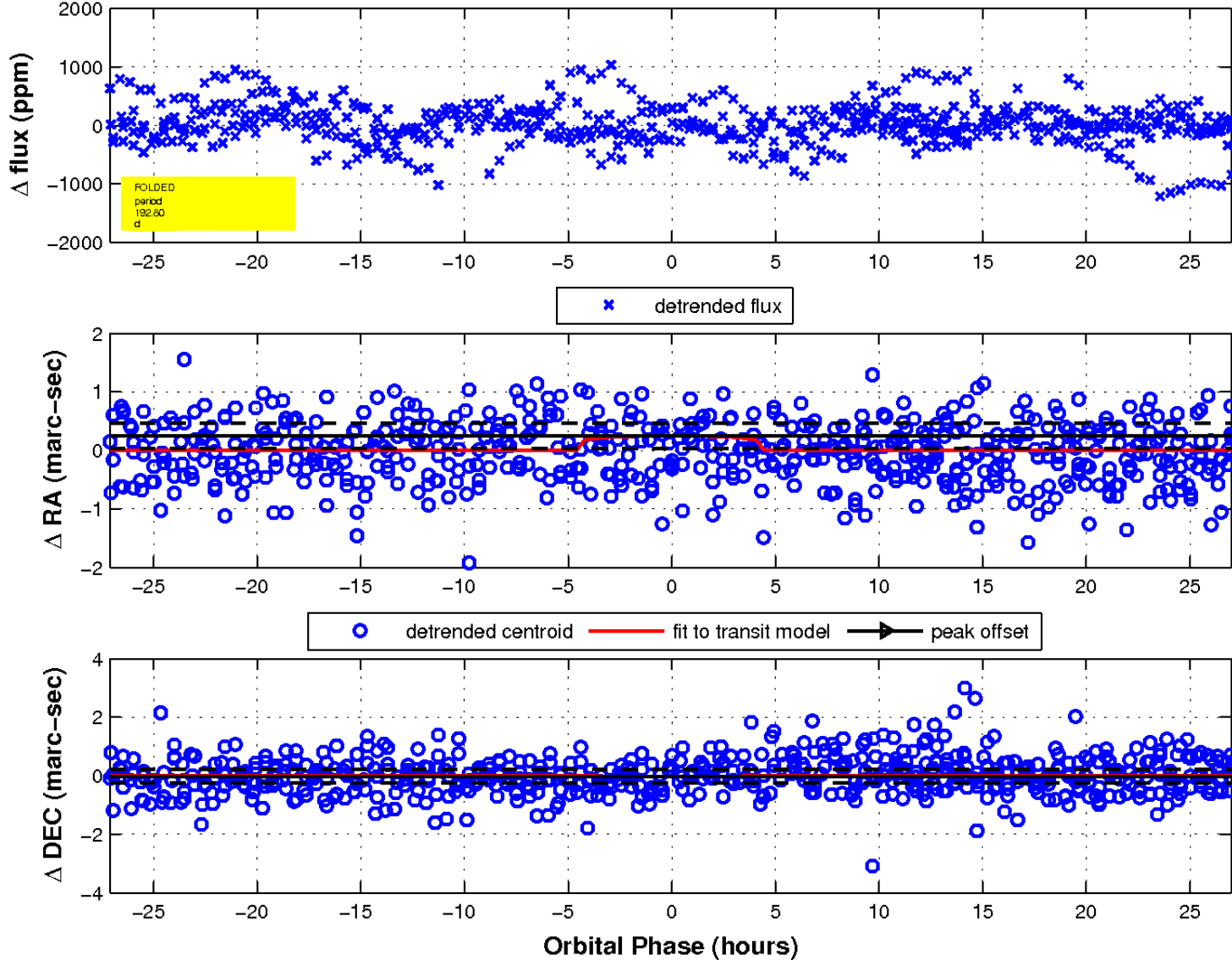
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

