

KIC 011555805

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})
011555805-01	OBS	No	404.897784	273.433825	2197.4	4.370	15.9	8.1	0.53	3954	2.45	0.08
011555805-02	OBS	No	199.607286	169.406964	2366.4	2.474	15.8	9.0	0.53	3954	2.57	0.20
011555805-03	OBS	No	370.067697	438.075148	1628.2	2.053	14.4	5.5	0.53	3954	2.16	0.09
011555805-04	OBS	No	99.567575	199.174454	1606.5	5.416	12.2	8.7	0.53	3954	2.19	0.51
011555805-05	OBS	No	263.790251	222.321857	2080.7	3.114	11.1	7.9	0.53	3954	2.45	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011555805-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011555805-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

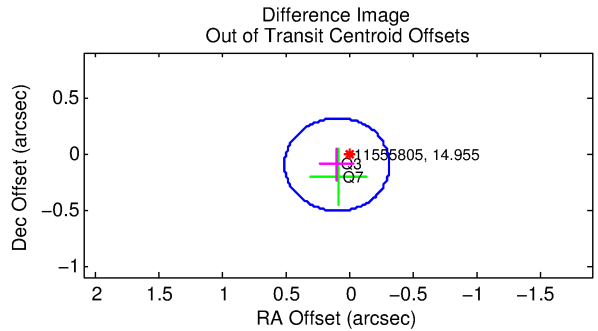
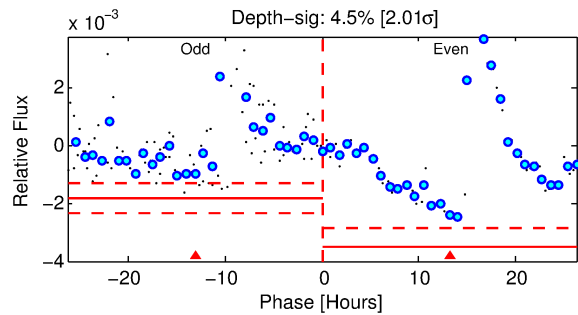
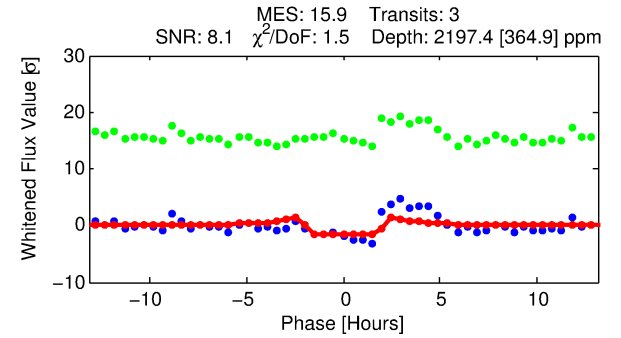
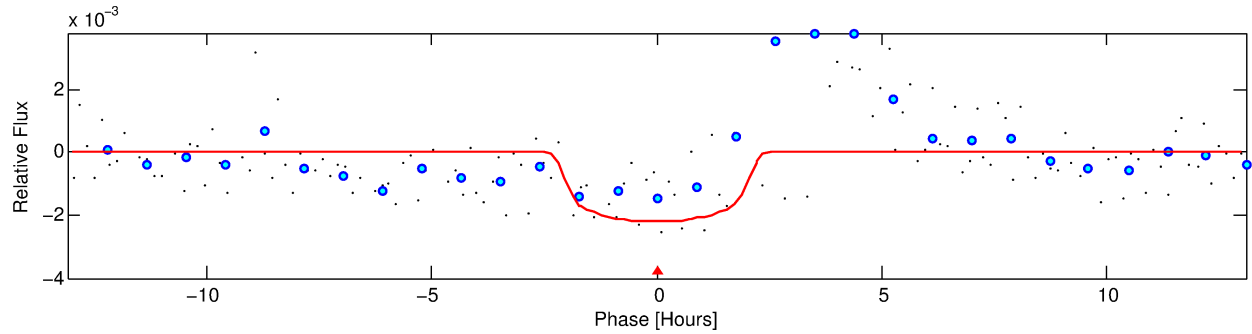
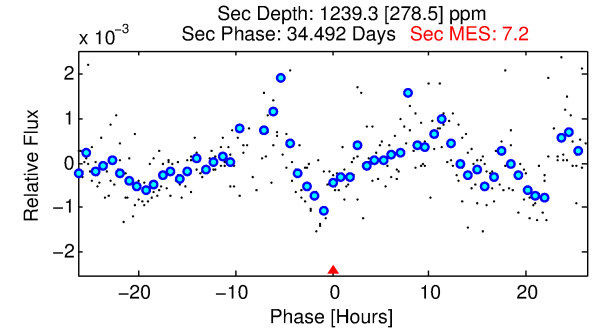
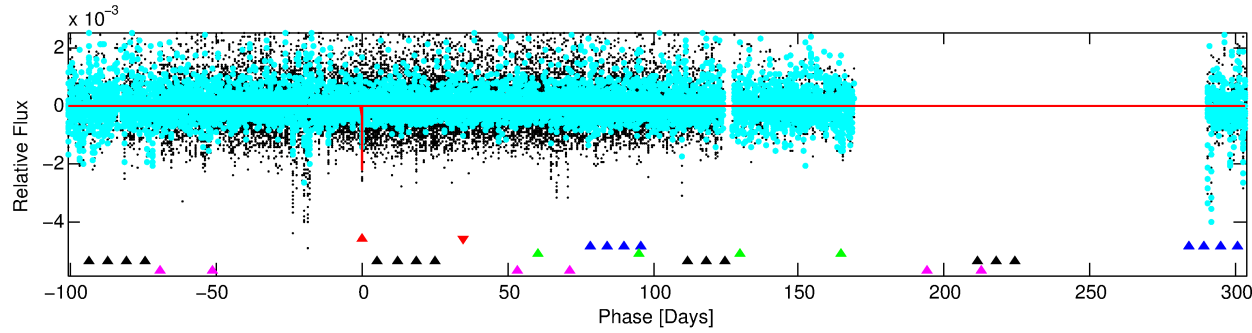
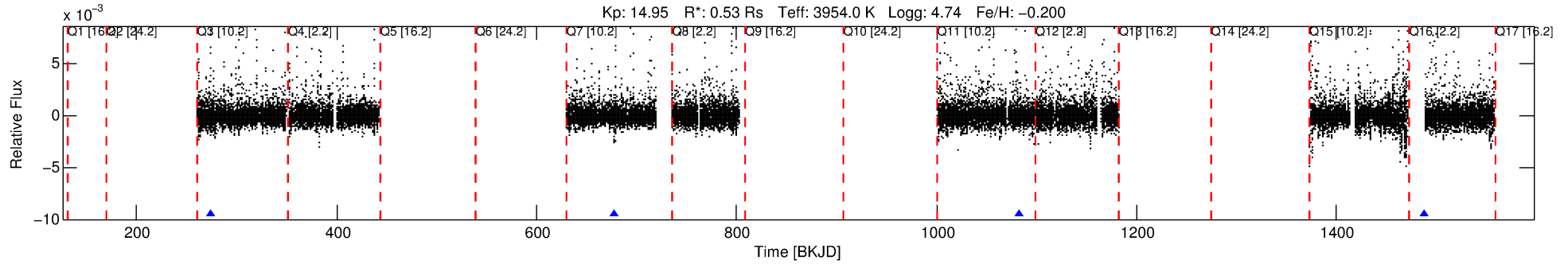
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011555805-01

No Significant Match Found

DV One-Page Summary

KIC: 11555805 Candidate: 1 of 5 Period: 404.898 d



DV Fit Results:

Period = 404.89778 [0.00590] d
Epoch = 273.4338 [0.0070] BKJD
Rp/R* = 0.0426 [0.0476]
a/R* = 723.92 [3335.84]
b = 0.20 [21.99]
Seff = 0.08 [0.01]
Teq = 135 [4] K
Rp = 2.45 [2.74] Re
a = 0.8800 [0.0498] AU
Ag = 88108.24 [198060.89] [0.44 σ]
Teffp = 3596 [2021] K [1.71 σ]

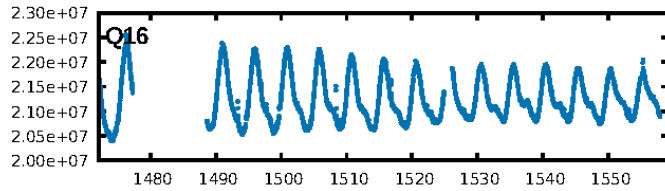
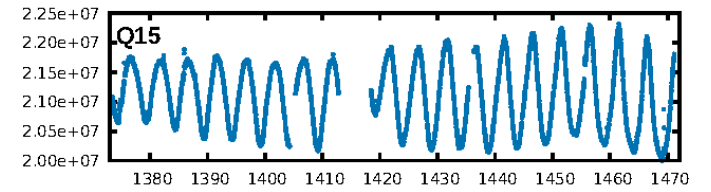
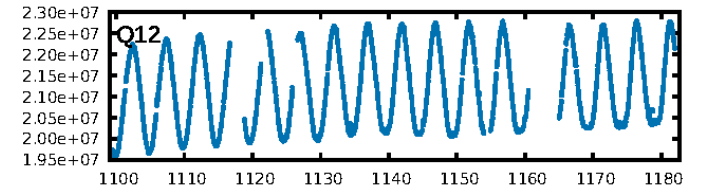
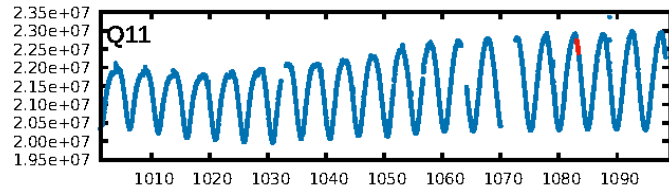
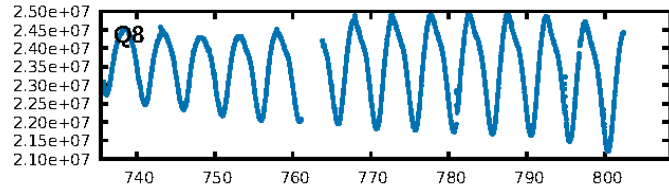
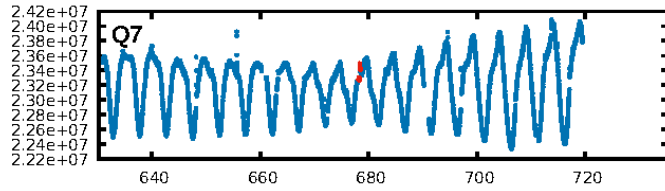
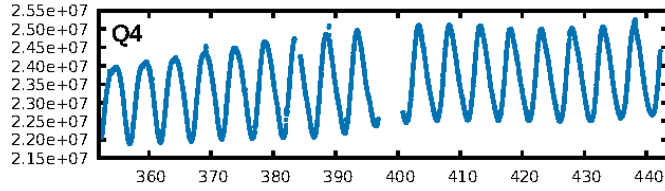
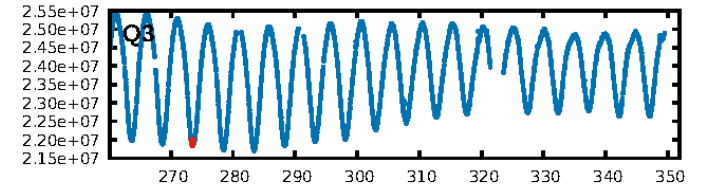
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [173.11 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 85.5%
Bootstrap-pfa: 2.84e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.05754
Centroid-sig: 15.1%
Centroid-so: 0.879 arcsec [1.36 σ]
OotOffset-rm: 0.144 arcsec [1.05 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-rm: 0.287 arcsec [2.07 σ]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

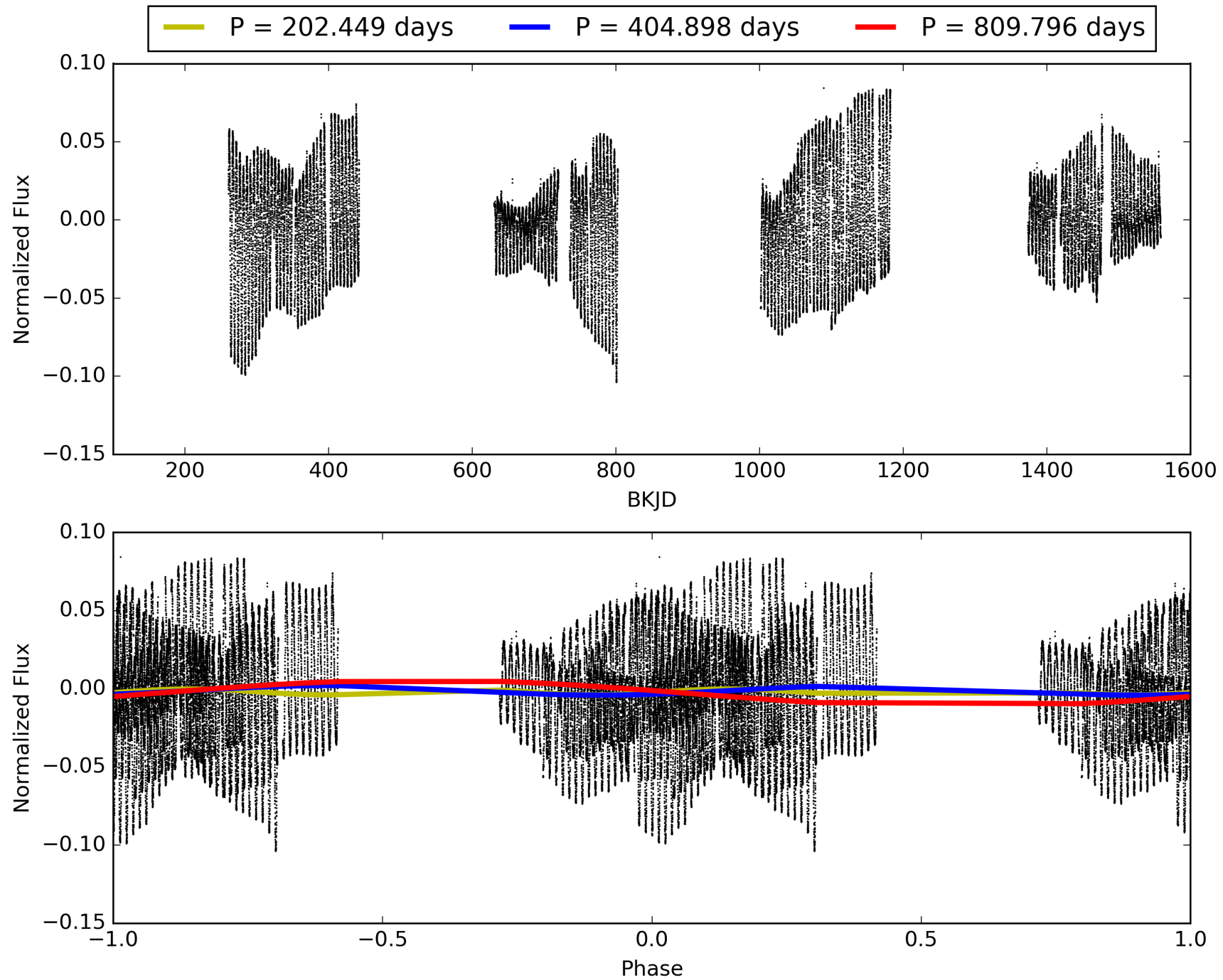
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011555805-01, PDC Light Curves

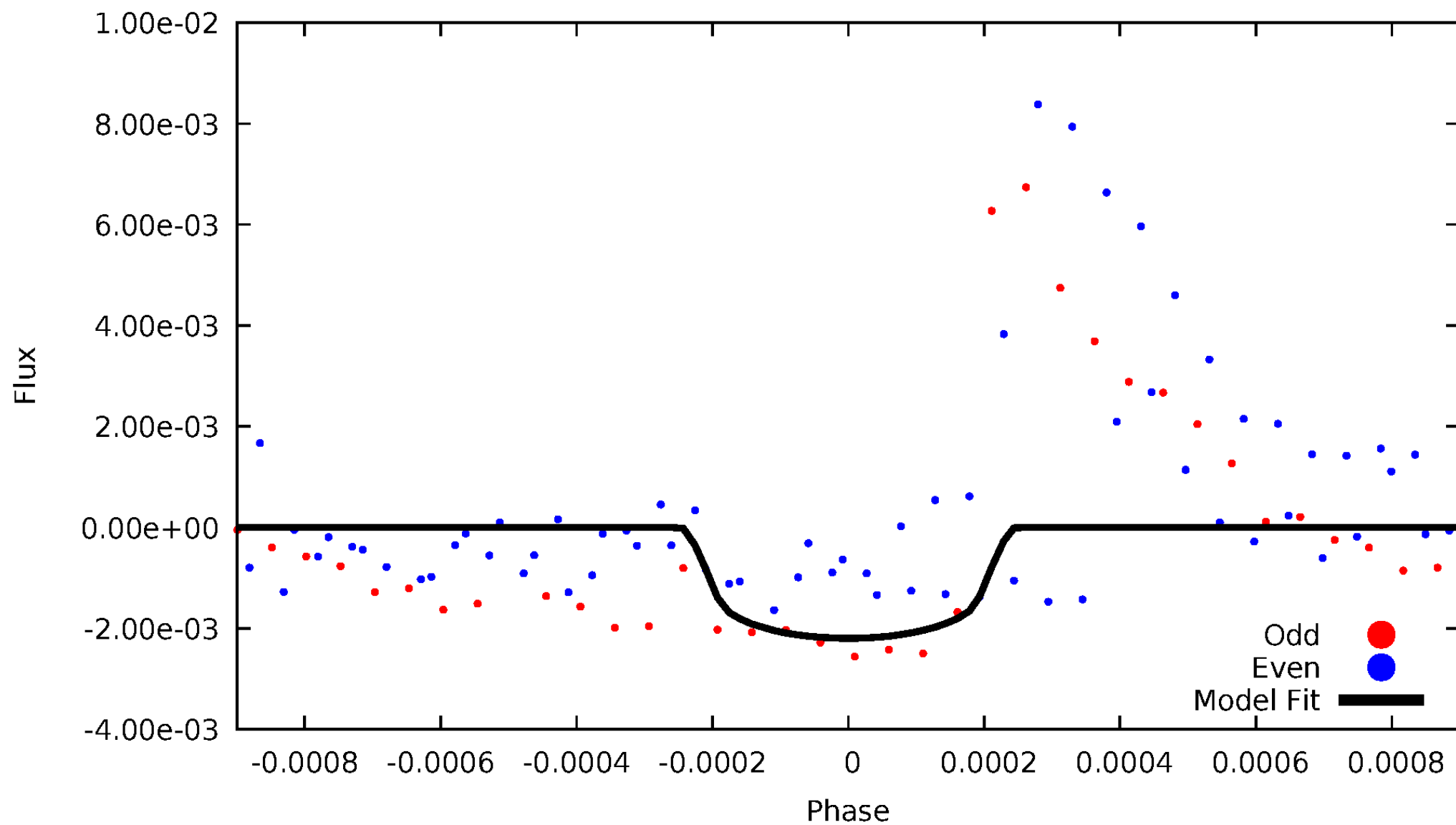


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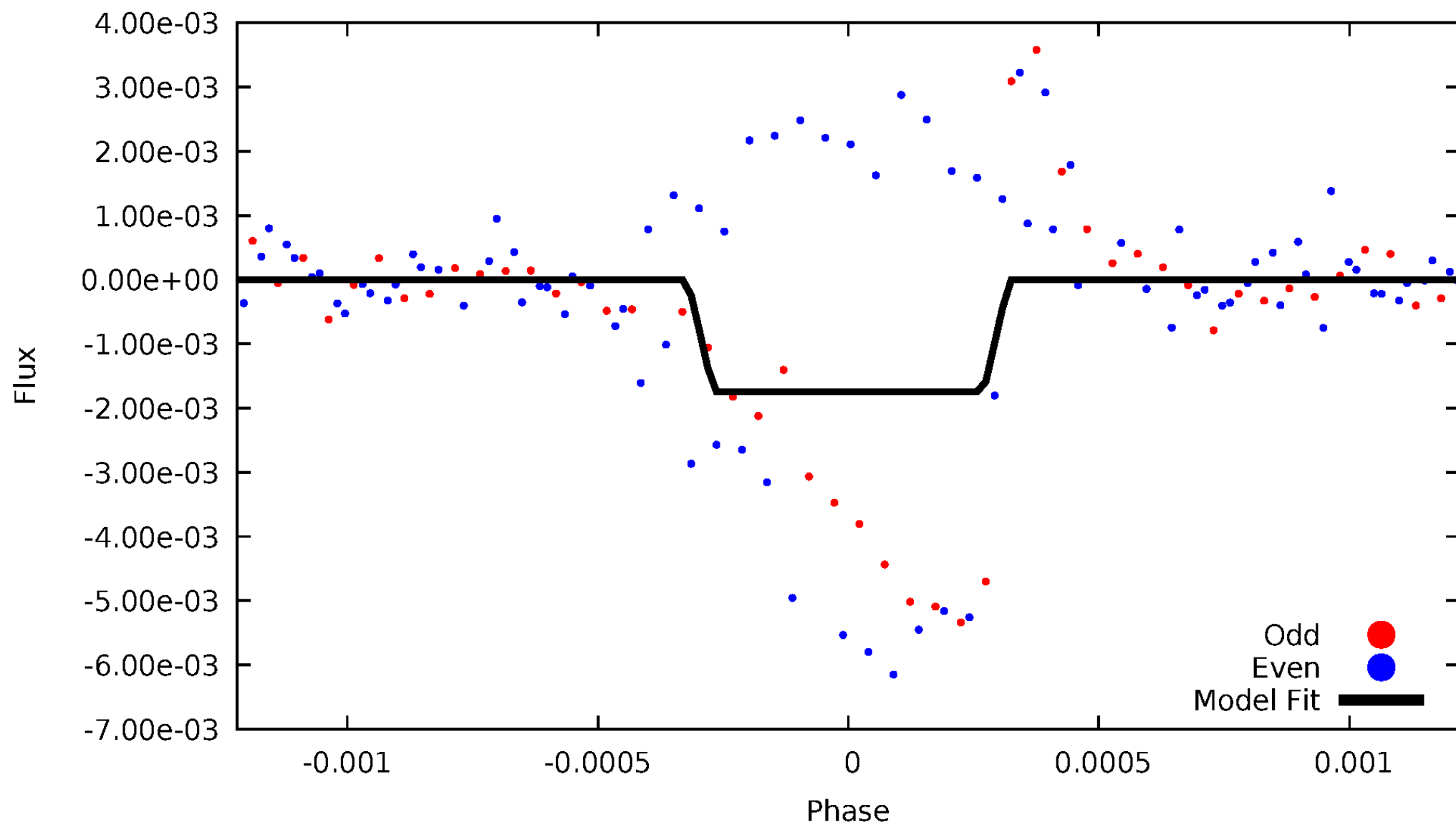
DV Odd/Even

TCE 011555805-01



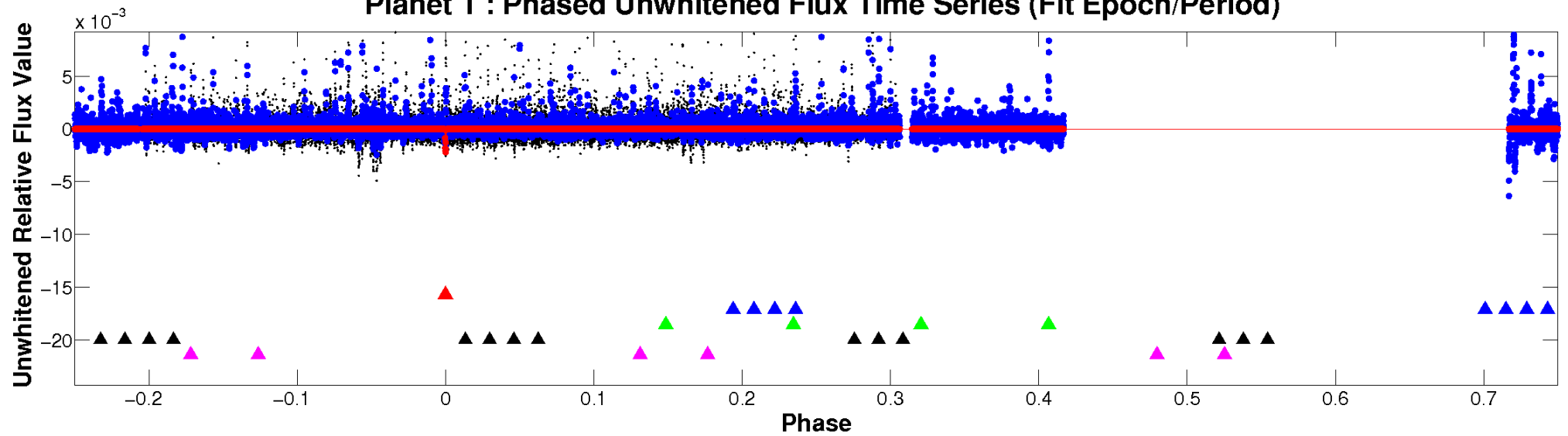
ALT Odd/Even

TCE 011555805-01

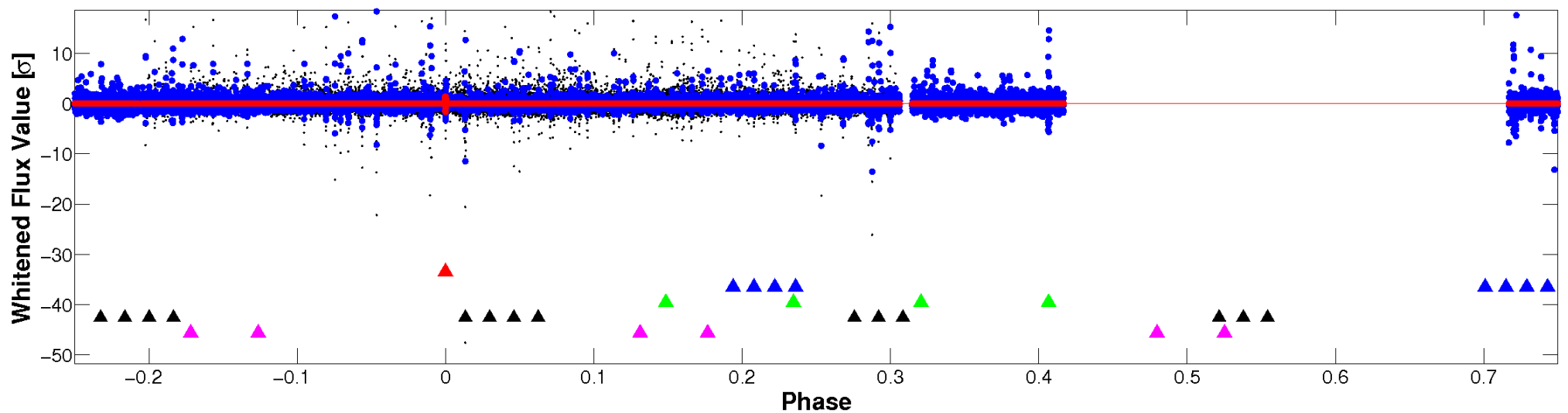


Non-Whitened Vs. Whitened Light Curve

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

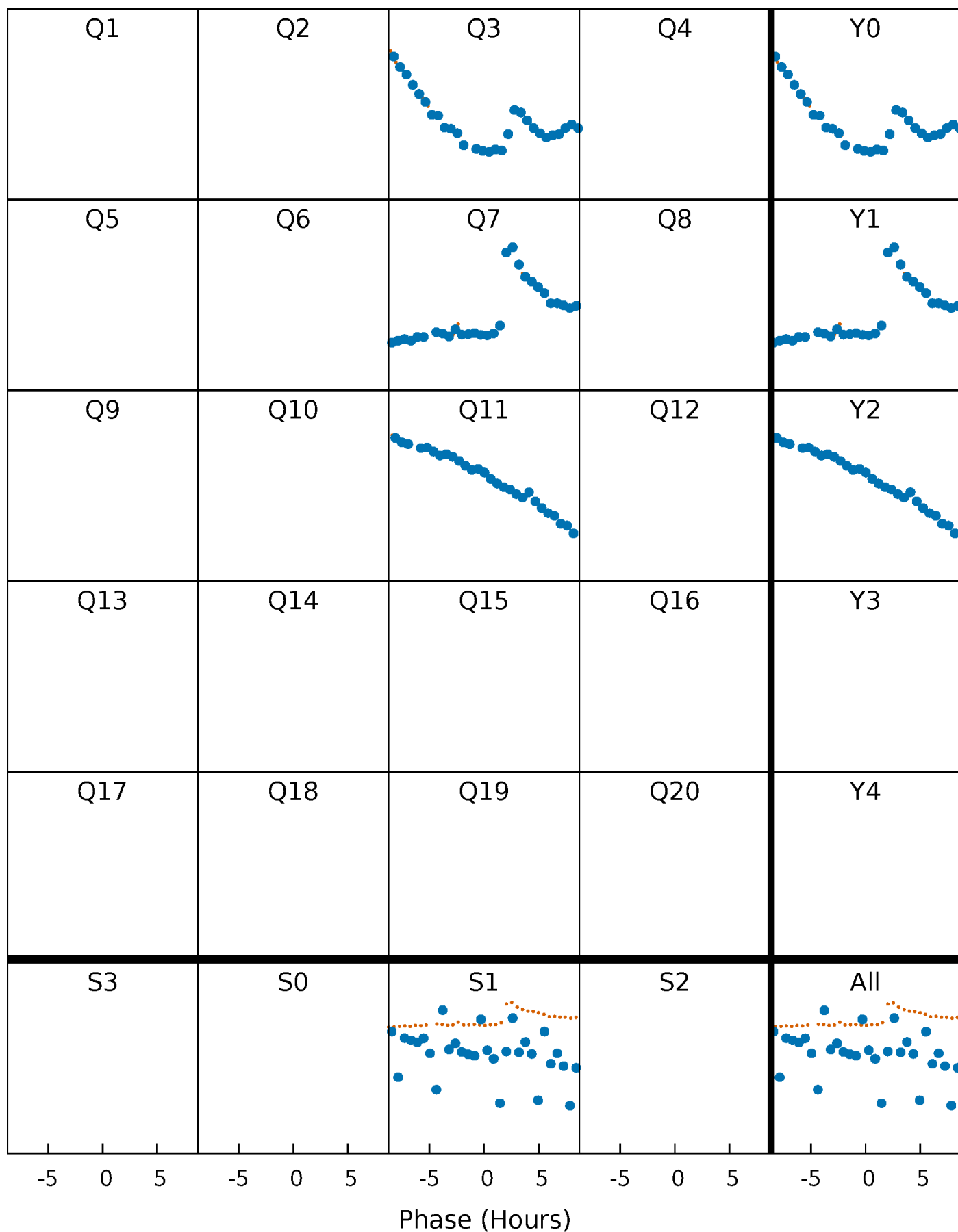


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



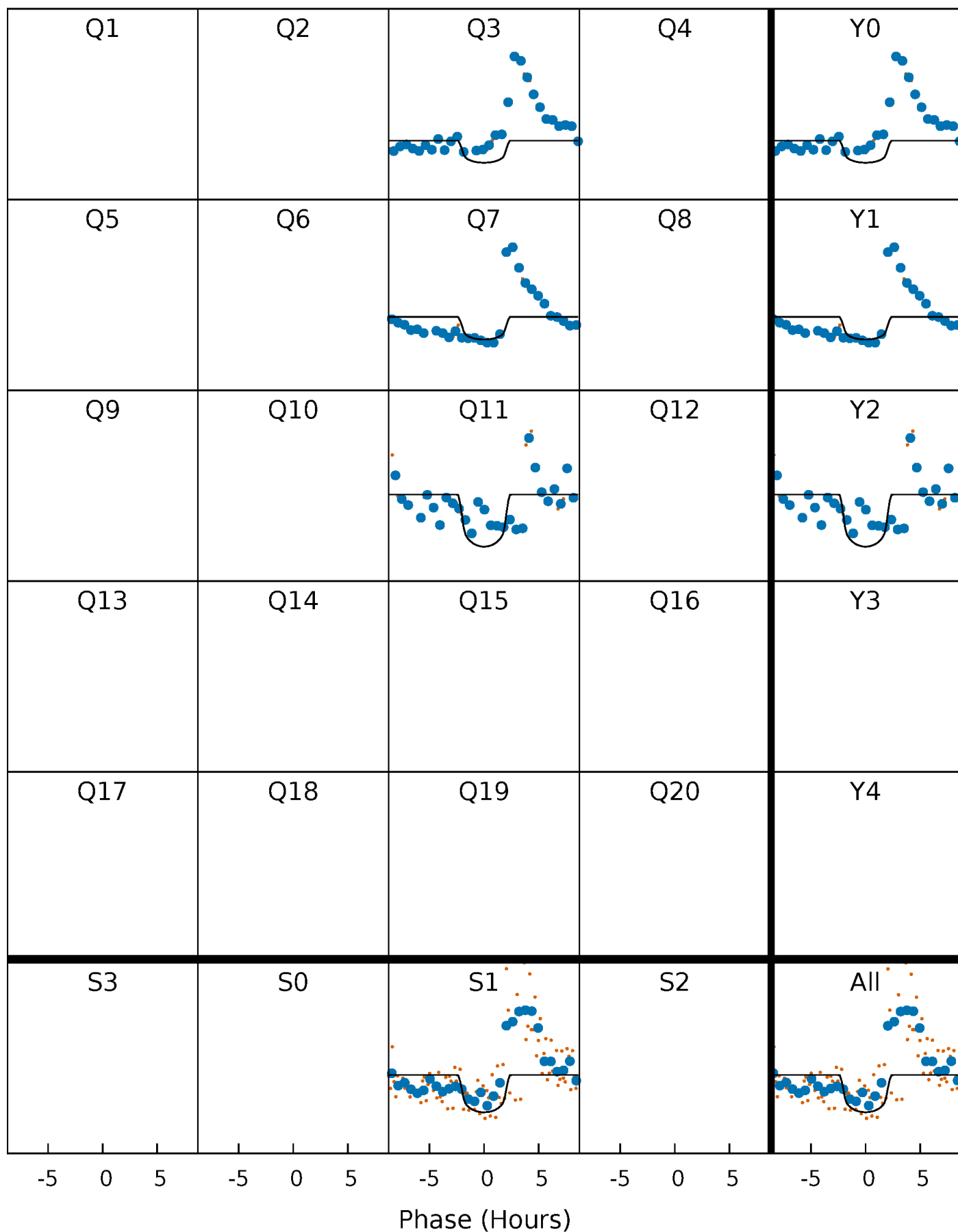
PDC Quarter-Phased Transit Curves

TCE 011555805-01 P=404.897784 Days $T_0=273.433825$ (BKJD)



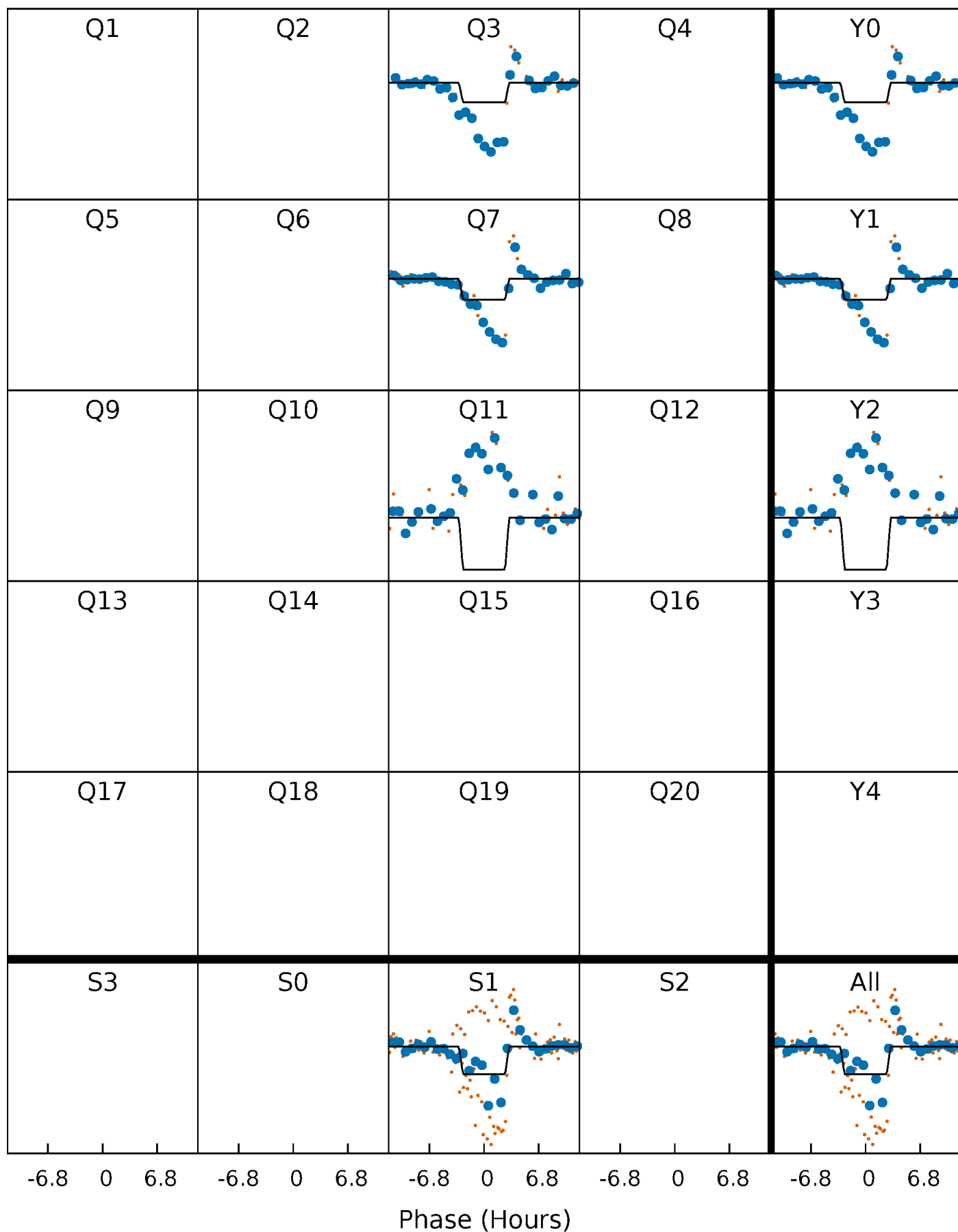
DV Quarter-Phased Transit Curves

TCE 011555805-01 P=404.897784 Days $T_0=273.433825$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

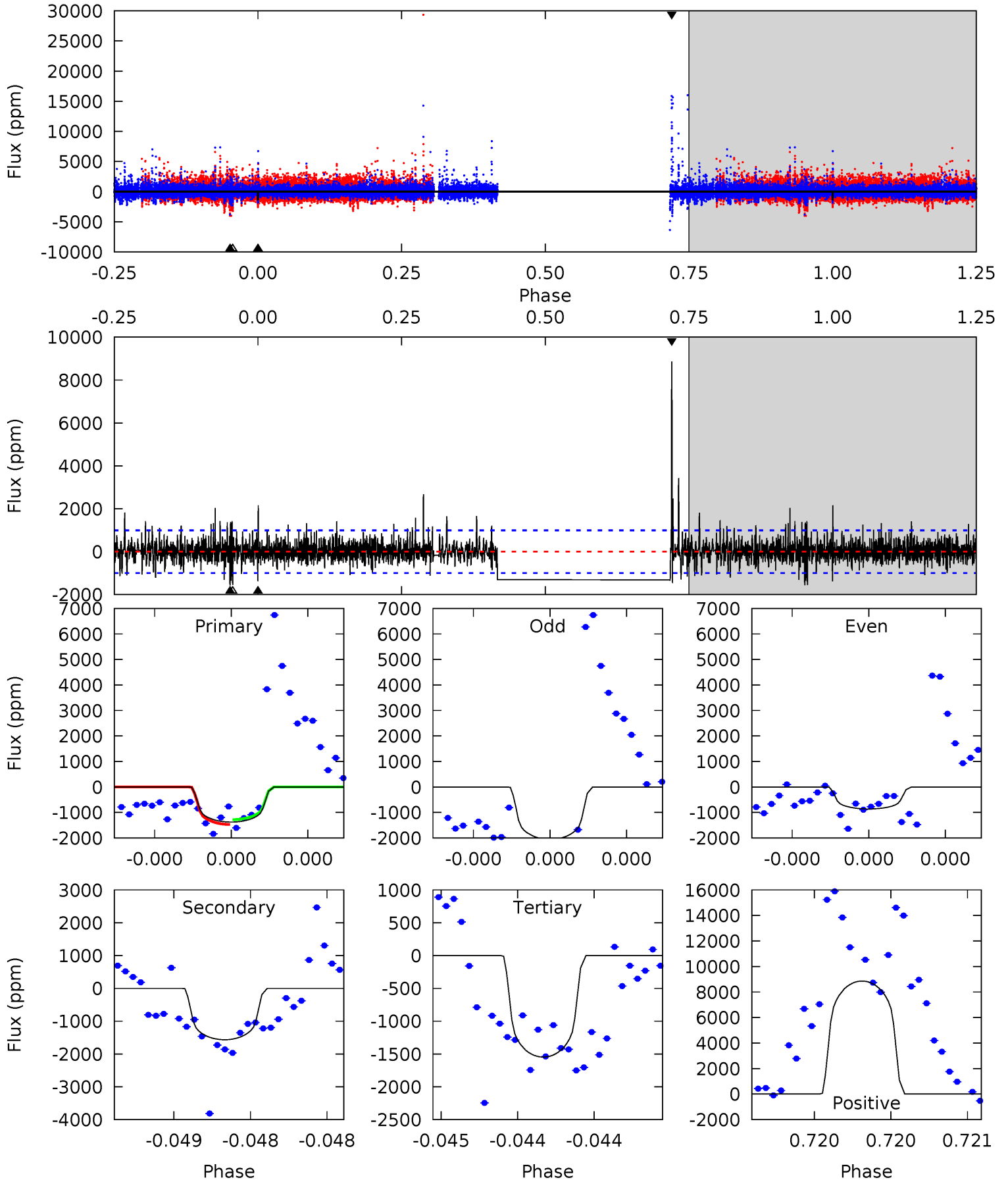
TCE 011555805-01 P=404.877369 Days $T_0=273.408121$ (BKJD)



DV Model-Shift Uniqueness Test

011555805-01, P = 404.897784 Days, E = 273.433825 Days

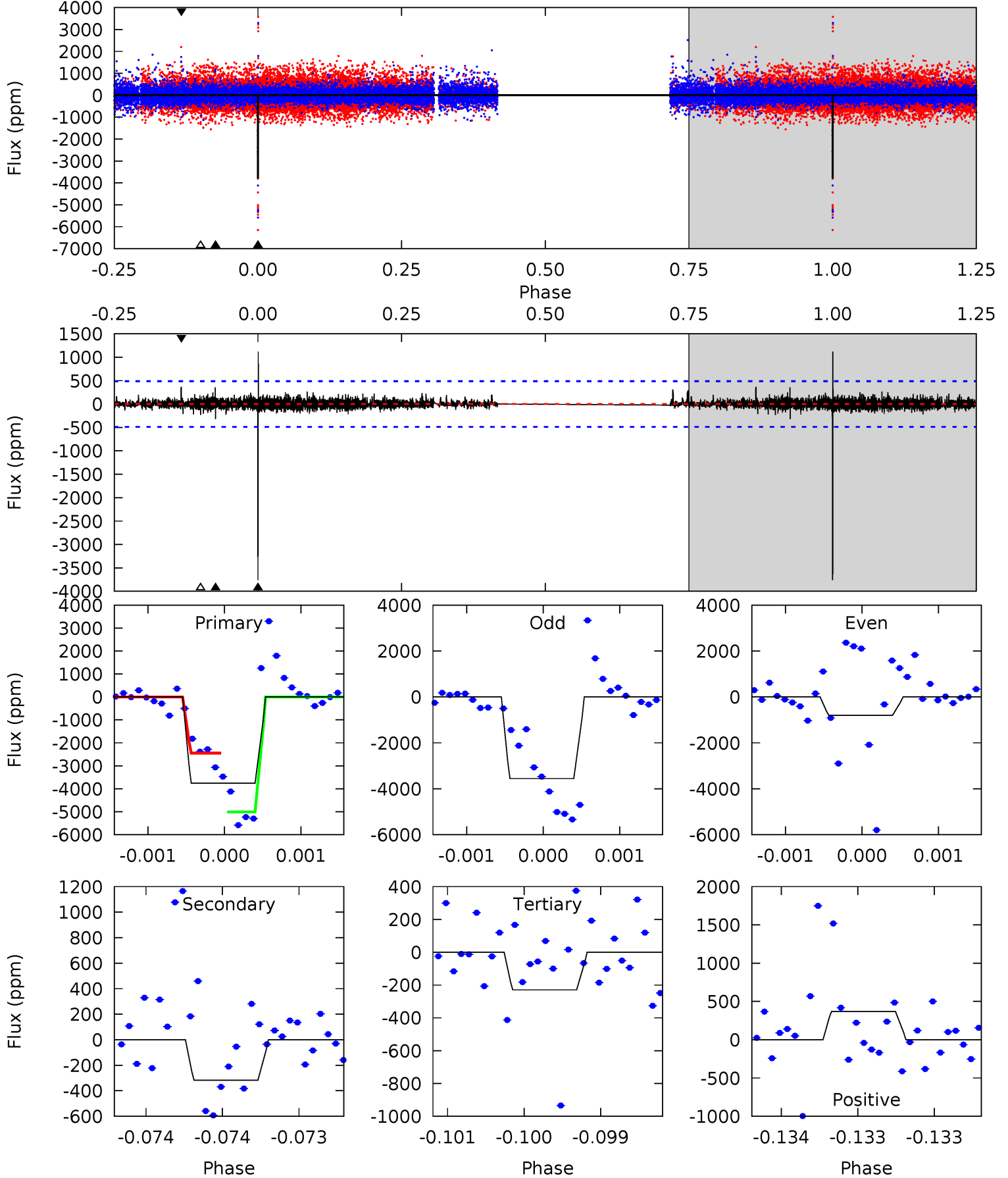
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.72	8.79	8.68	49.7	5.58	3.50	2.38	-0.97	-42.0	0.10	-40.9	2.63	0.99	0.85	0.52



Alt Model-Shift Uniqueness Test

011555805-01, P = 404.877369 Days, E = 273.408121 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.7	3.61	2.61	4.21	5.54	3.43	0.65	40.1	38.5	1.00	-0.60	19.1	0.58	0.23	0



Stellar Parameters For KIC 011555805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3954^{+78}_{-94}	$4.738^{+0.032}_{-0.039}$	$-0.200^{+0.200}_{-0.200}$	$0.527^{+0.038}_{-0.038}$	$0.555^{+0.035}_{-0.047}$	$5.324^{+0.857}_{-0.805}$
	+2%/-2%	+1%/-1%	+100%/-100%	+7%/-7%	+6%/-8%	+16%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011555805-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1565 ± 178	$3.11^{+2.36}_{-2.09}$	188^{+5}_{-5}	3580^{+1830}_{-577}	$70392^{+532615}_{-47401}$
Alt.	-317 ± 88	$3.10^{+2.29}_{-2.03}$	189^{+5}_{-5}	2804^{+1119}_{-373}	$13739^{+107499}_{-9310}$

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 $A_{obs} \gg 1.0$

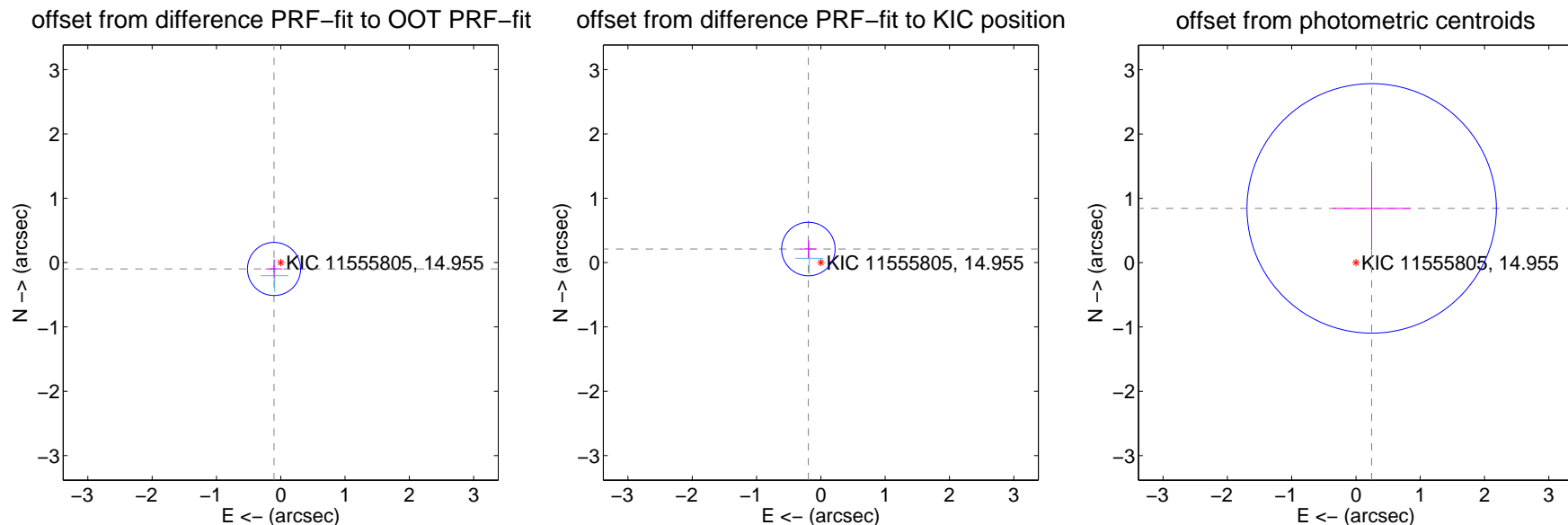
DV Centroid Data

Supplemental centroid analysis for 011555805-01. Kepler magnitude: 14.96. Transit SNR 8.12

There are 2 quarters with good PRF difference image offsets

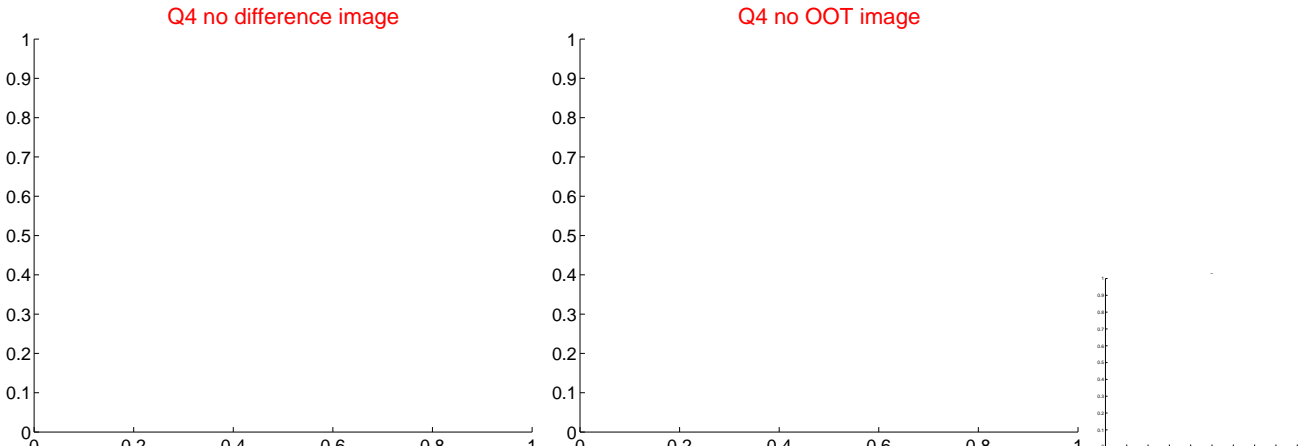
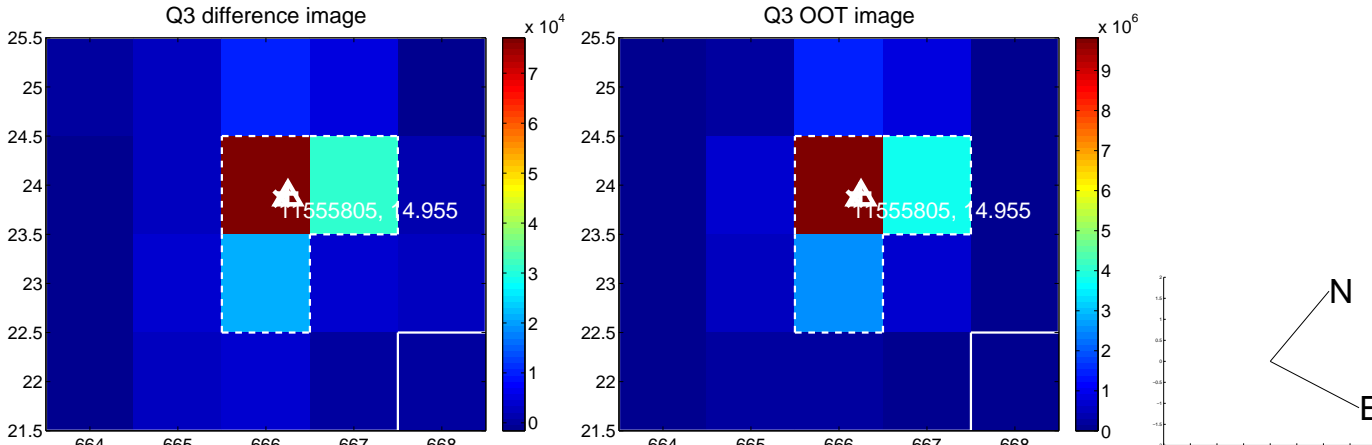
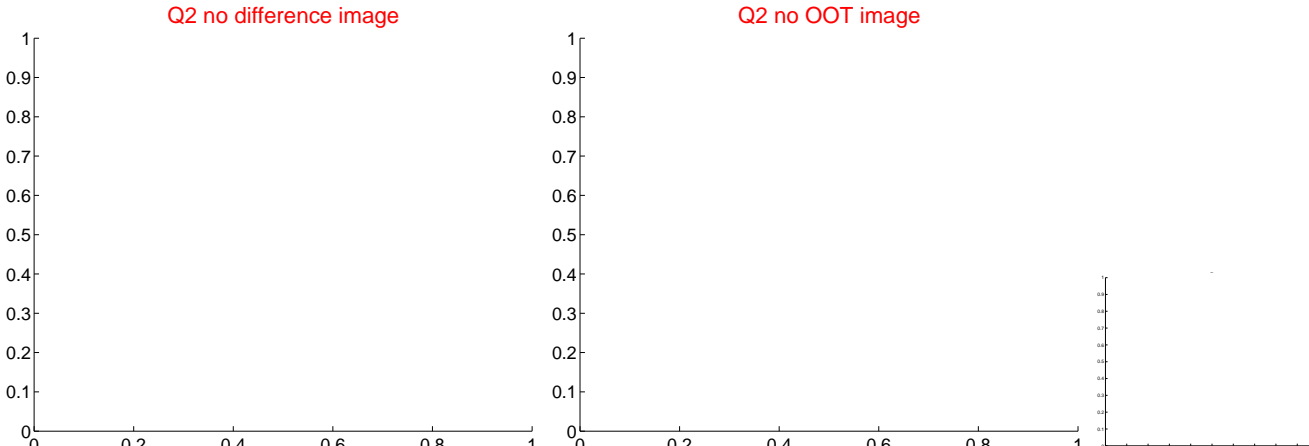
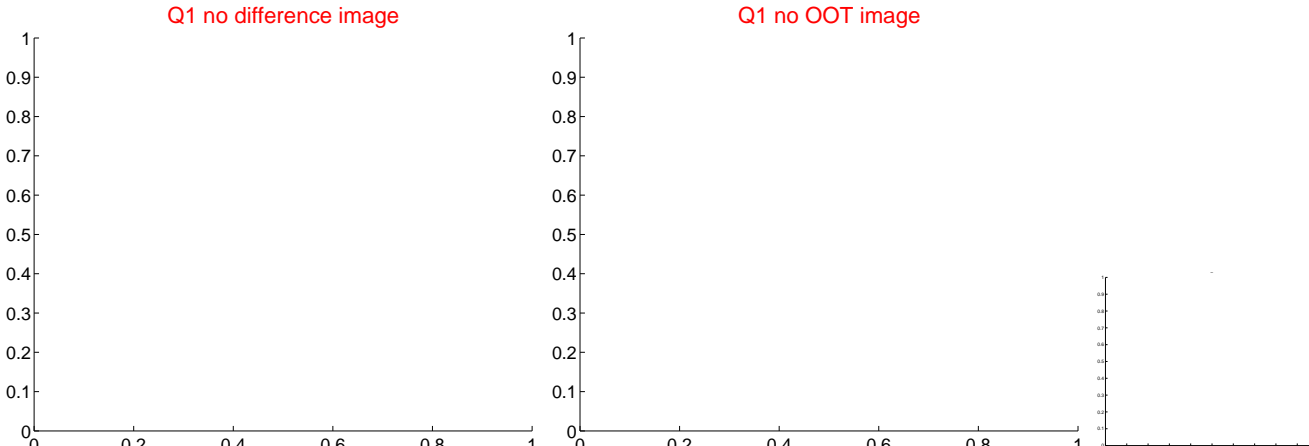
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.144 ± 0.138	1.05	0.105 ± 0.130	-0.099 ± 0.146
PRF-fit source offset from KIC position	0.287 ± 0.139	2.07	0.194 ± 0.130	0.211 ± 0.146
photometric centroid source offset	0.88 ± 0.65	1.36	-0.24 ± 0.61	0.84 ± 0.65

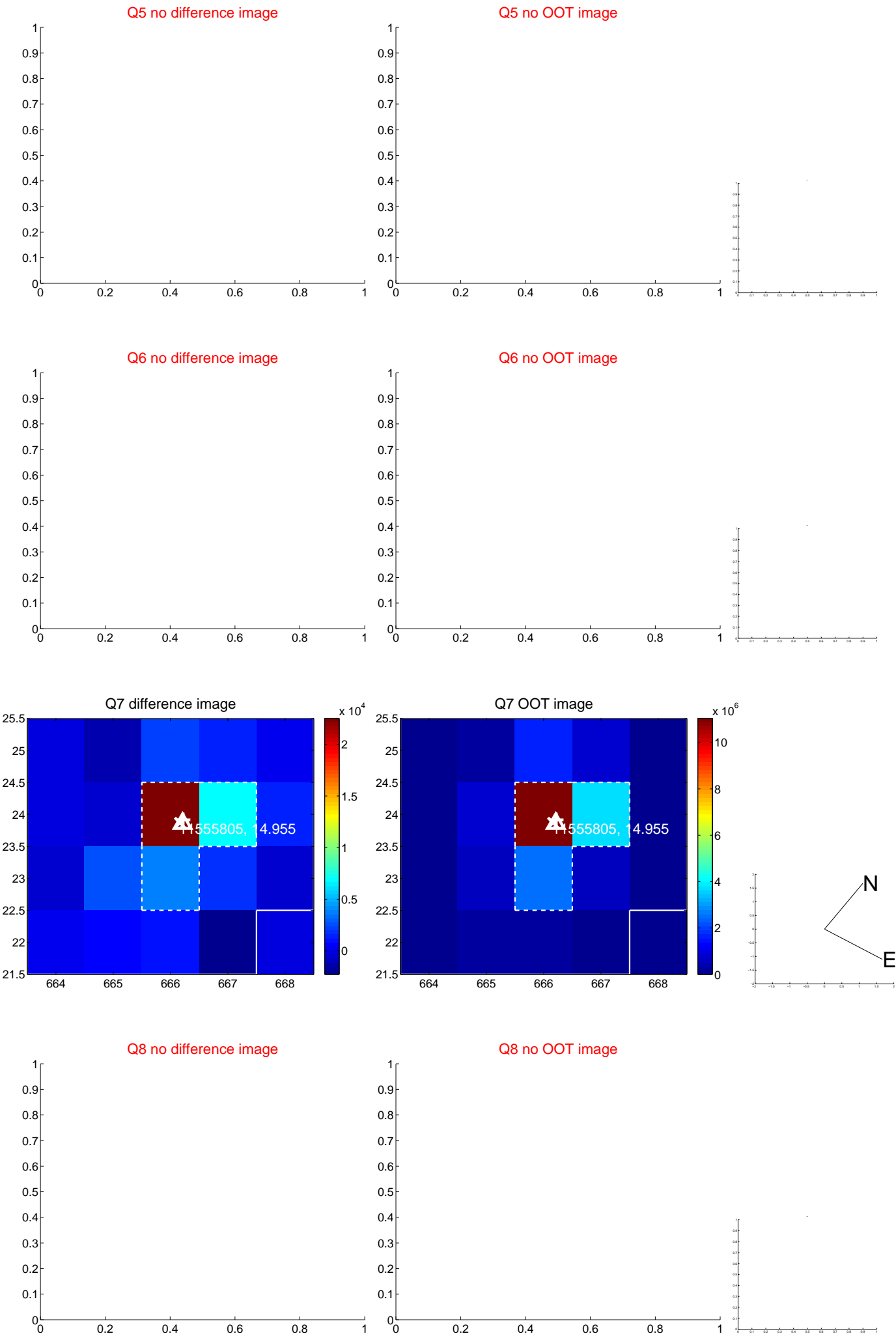


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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



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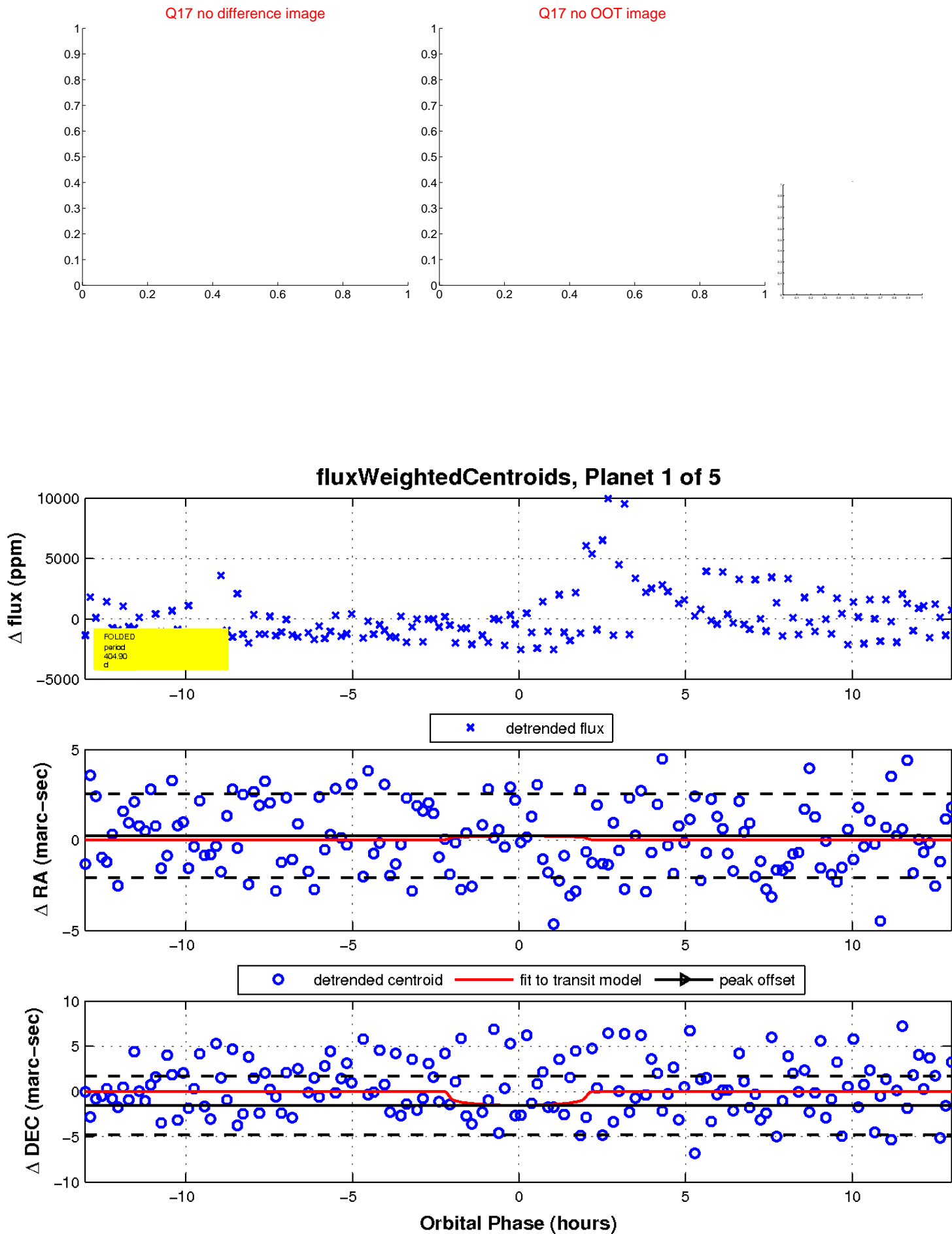
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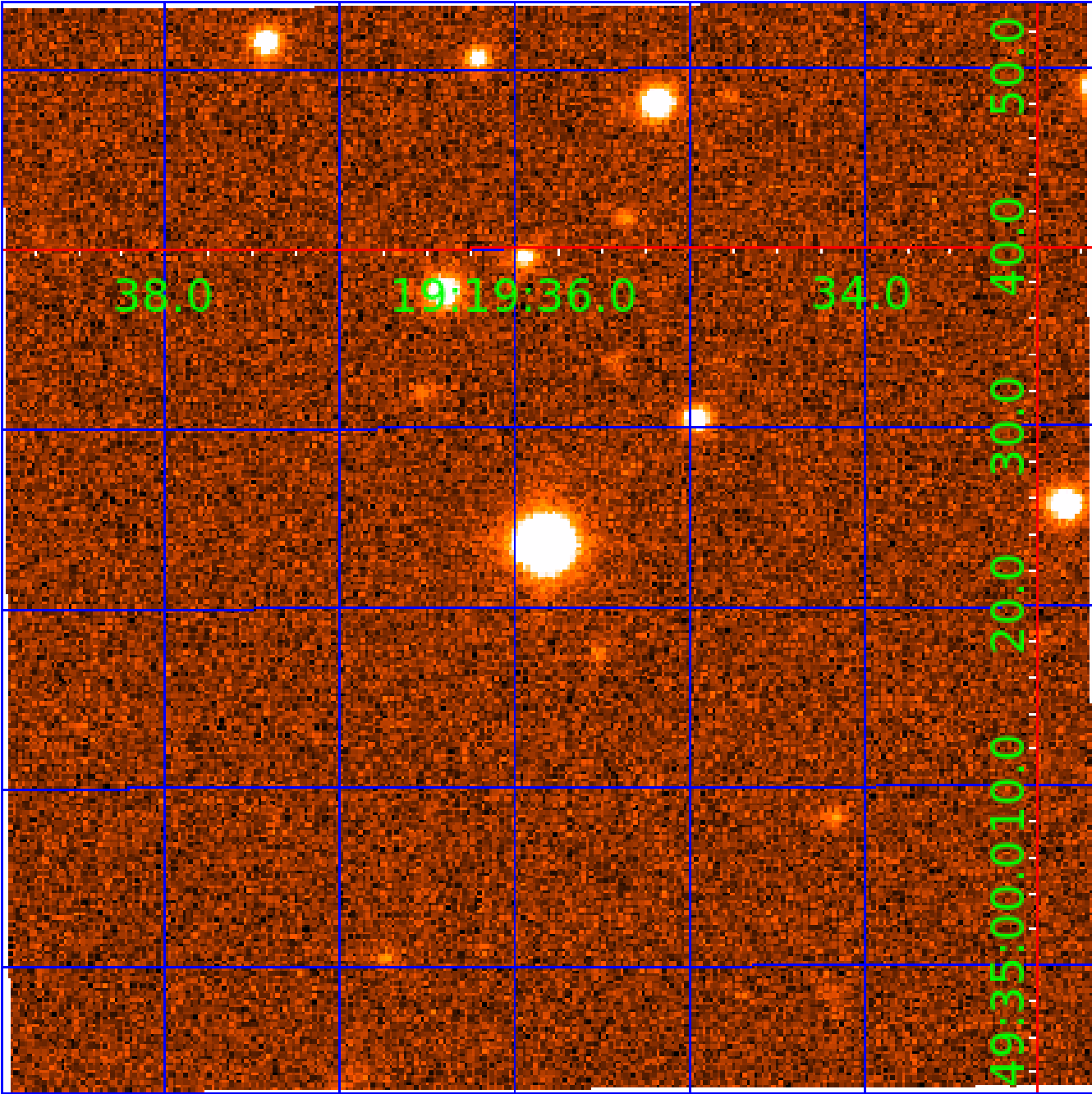


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UKIRT Image

Declination



KIC 011555805

Q1-17 DR25 TCE Parameters

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011555805-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011555805-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_FEW_DIFFS

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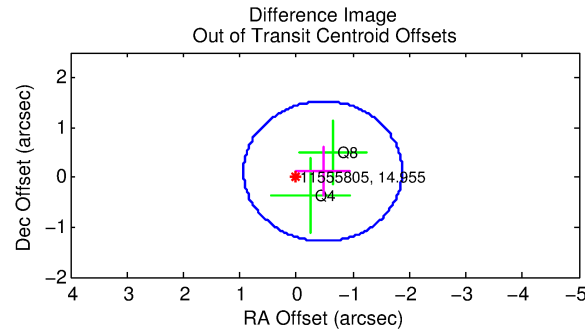
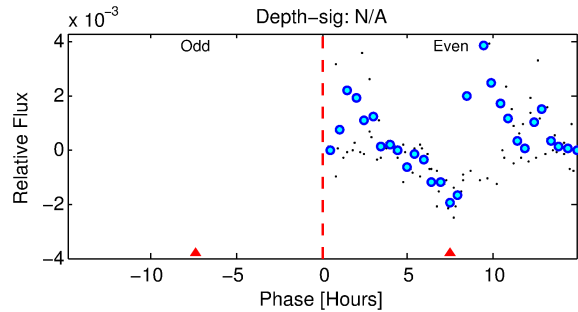
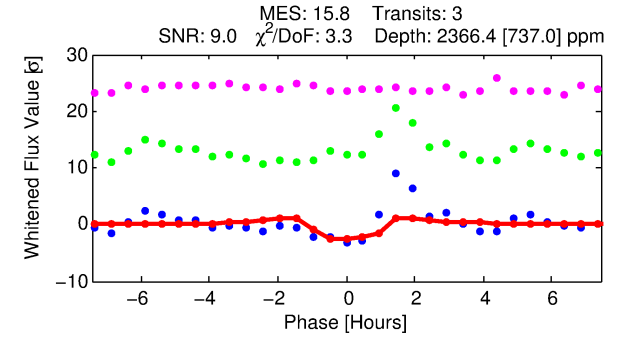
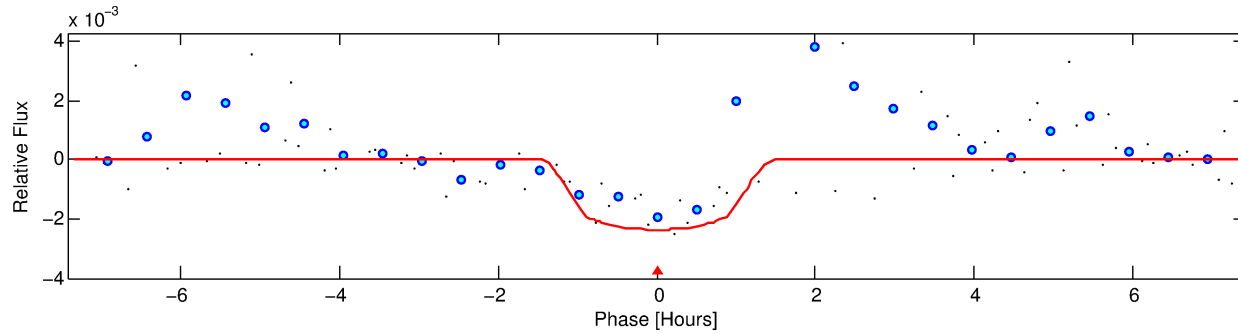
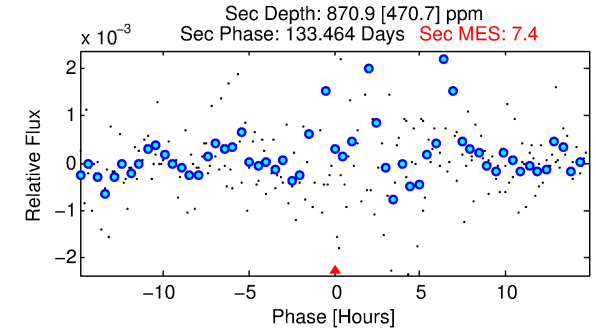
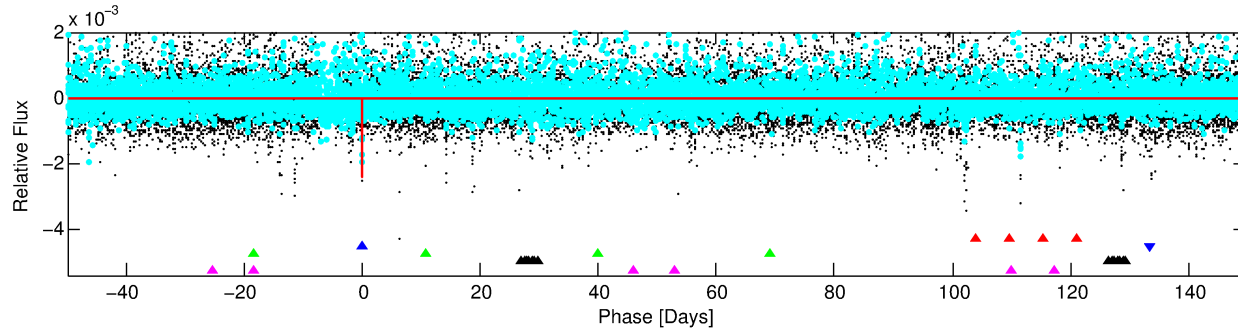
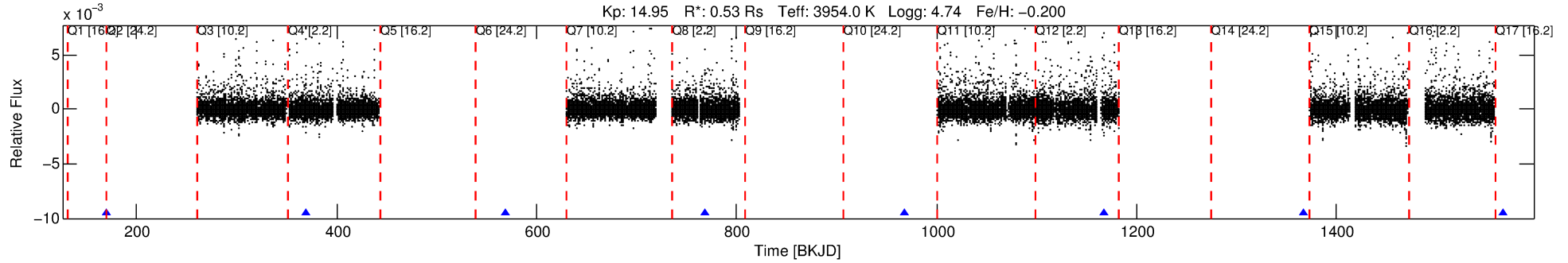
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011555805-02

No Significant Match Found

DV One-Page Summary

KIC: 11555805 Candidate: 2 of 5 Period: 199.607 d



DV Fit Results:

Period = 199.60729 [0.00339] d
Epoch = 169.4070 [0.0103] BKJD
Rp/R* = 0.0447 [0.2655]
a/R* = 604.50 [14903.90]
b = 0.36 [60.42]
Seff = 0.20 [0.02]
Teq = 171 [5] K
Rp = 2.57 [15.27] Re
a = 0.5491 [0.0311] AU
Ag = 21824.62 [259313.51] [0.08]
Teffp = 3211 [9539] K [0.32]

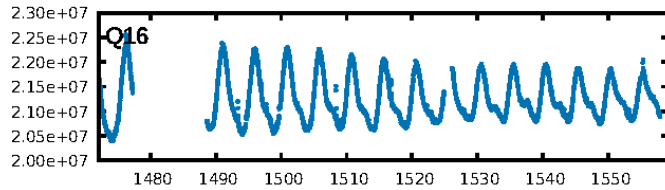
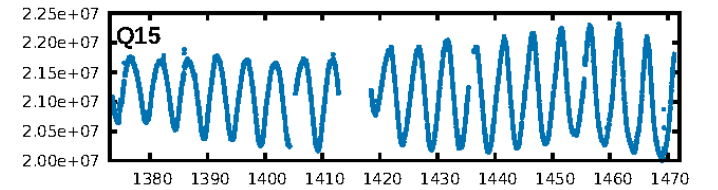
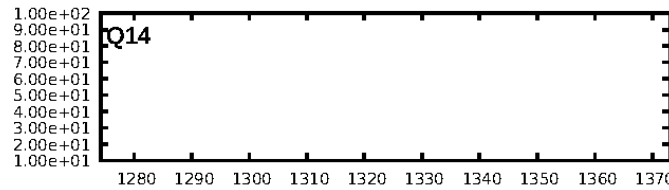
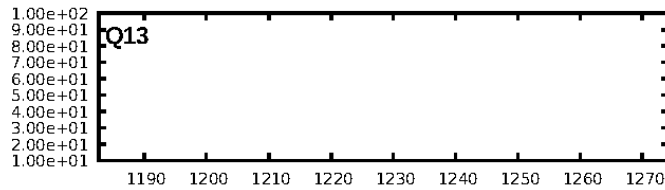
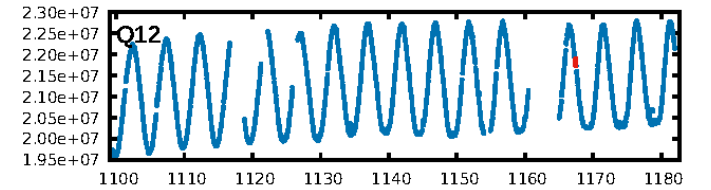
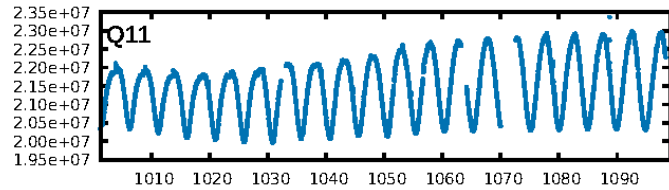
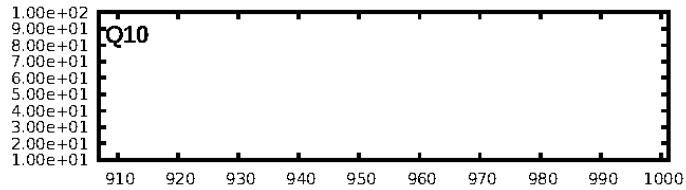
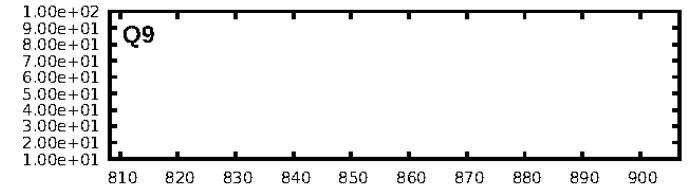
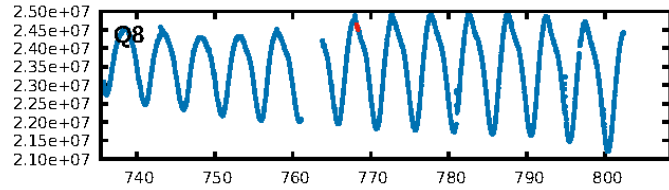
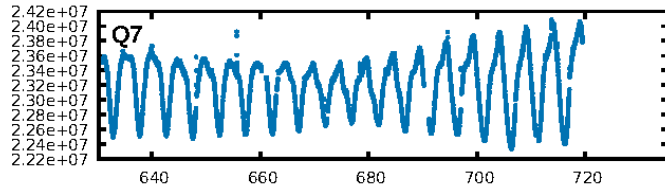
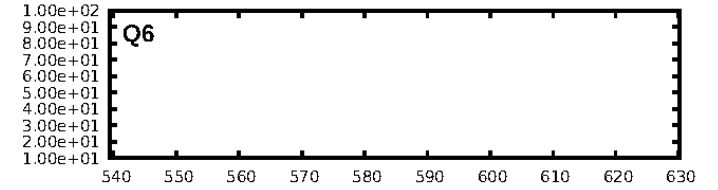
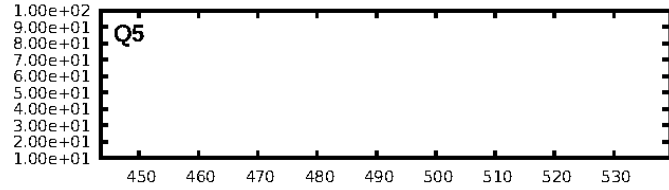
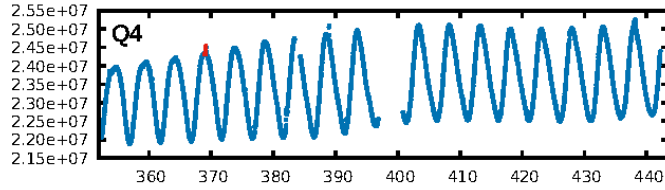
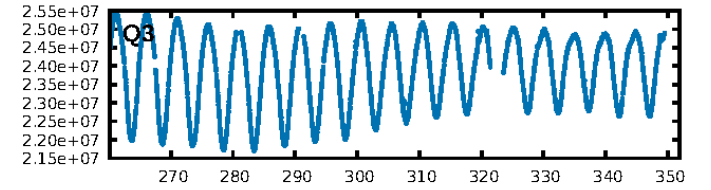
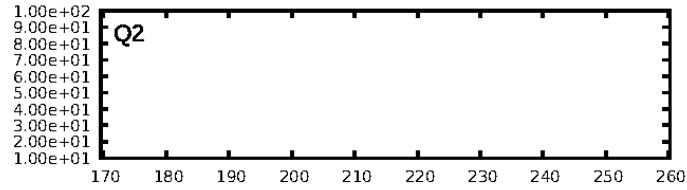
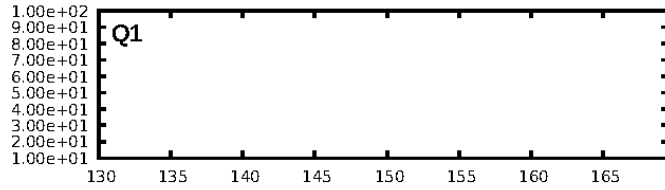
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [403.22]
LongPeriod-sig: 100.0% [387.30]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.2%
Bootstrap-pfa: 1.33e-17
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.1649
Centroid-sig: 57.8%
Centroid-so: 0.947 arcsec [0.75]
OotOffset-rm: 0.483 arcsec [1.03]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 0.560 arcsec [1.19]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

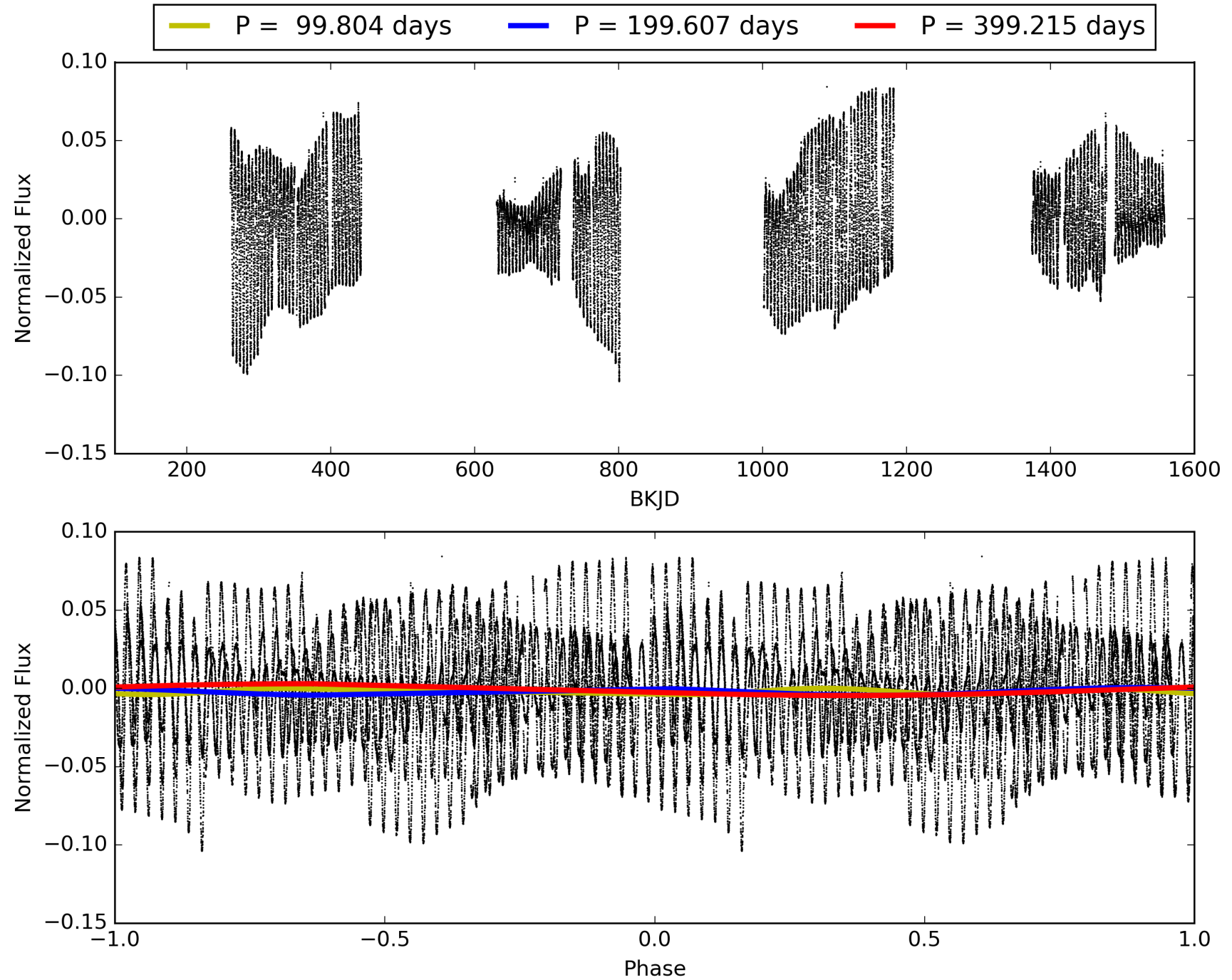
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:36:03 Z

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

TCE 011555805-02, PDC Light Curves

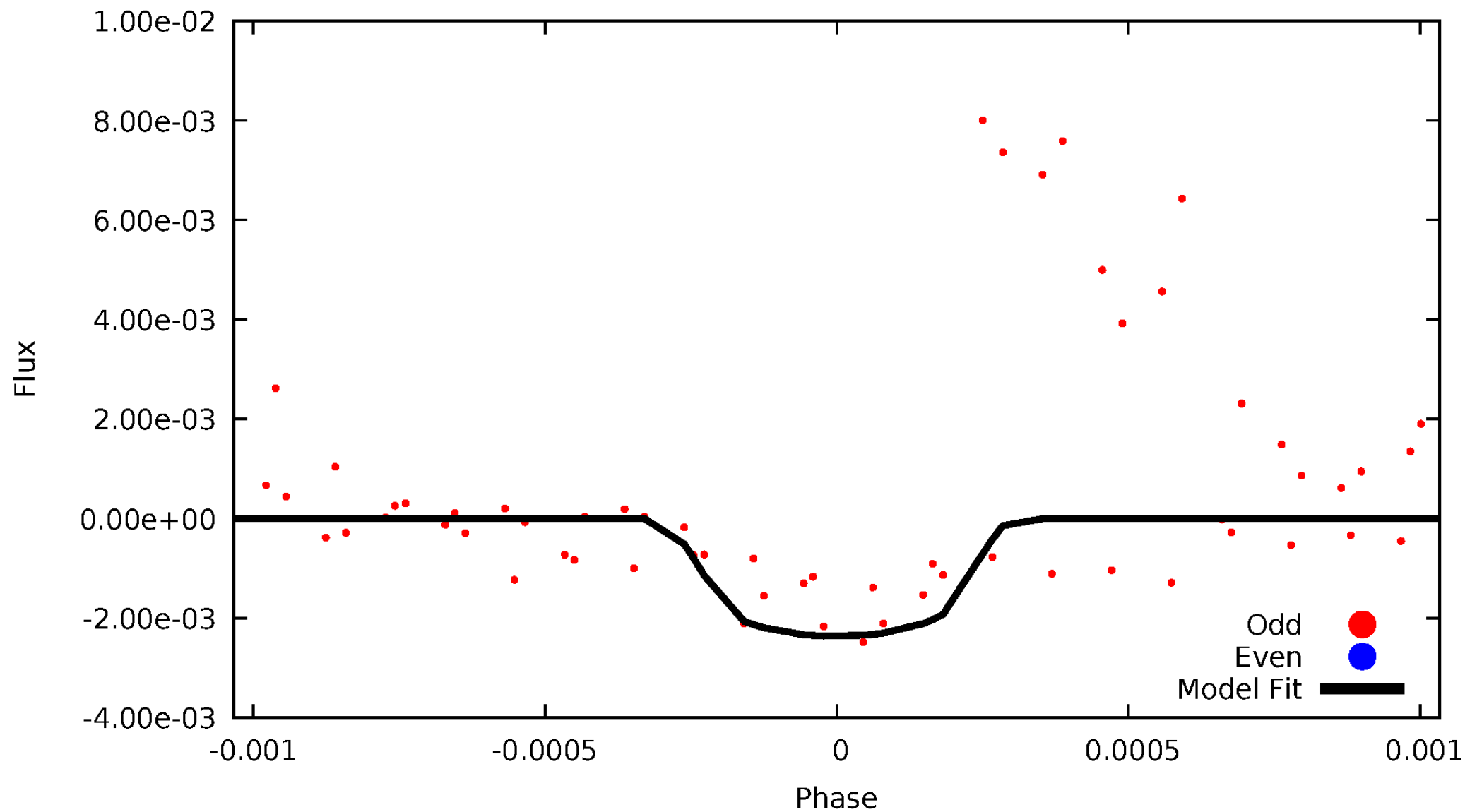


TCE 011555805-02



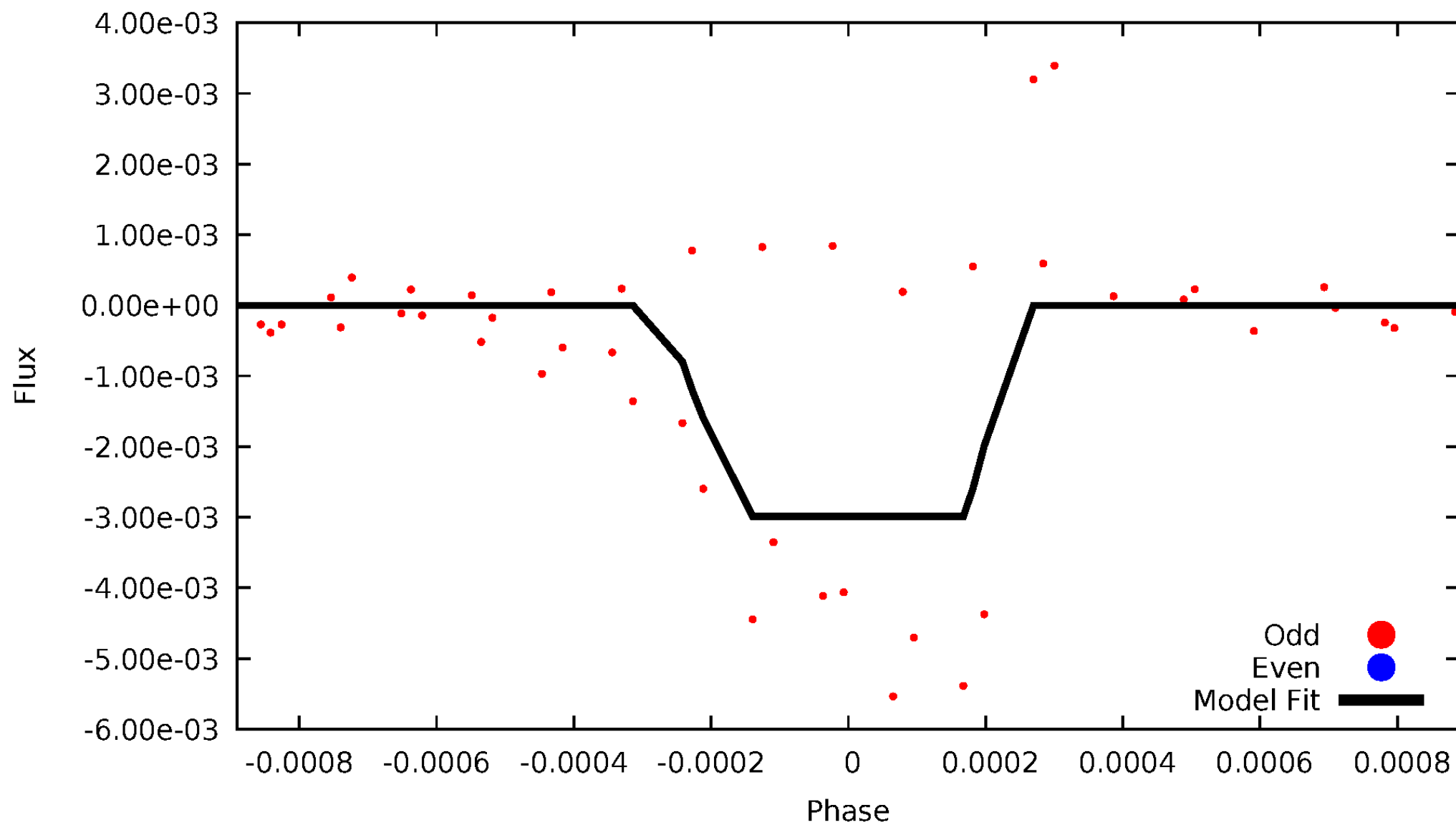
DV Odd/Even

TCE 011555805-02



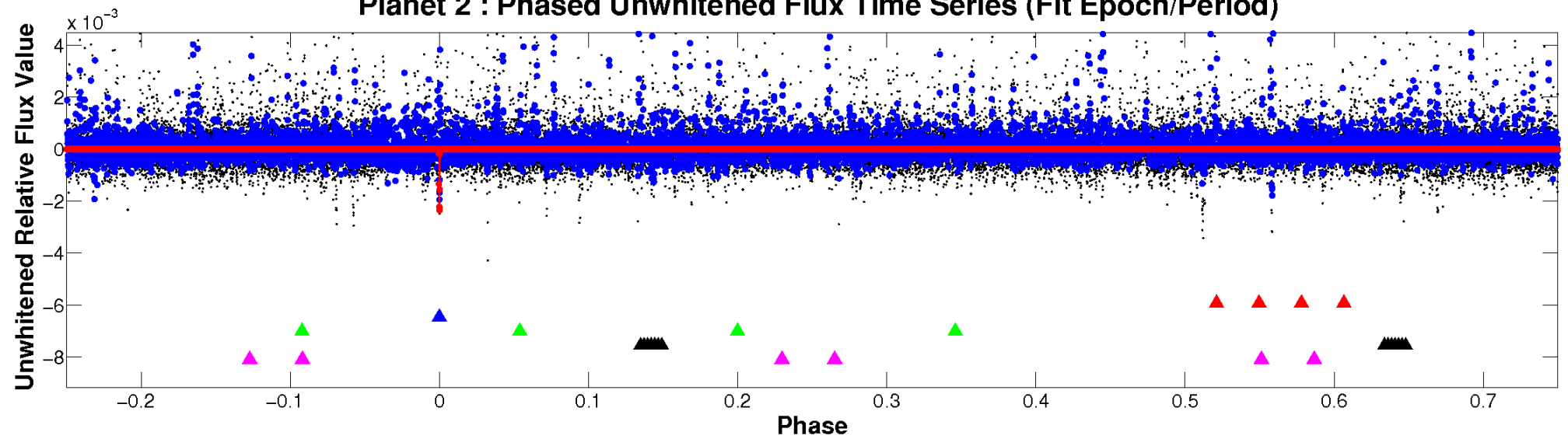
ALT Odd/Even

TCE 011555805-02

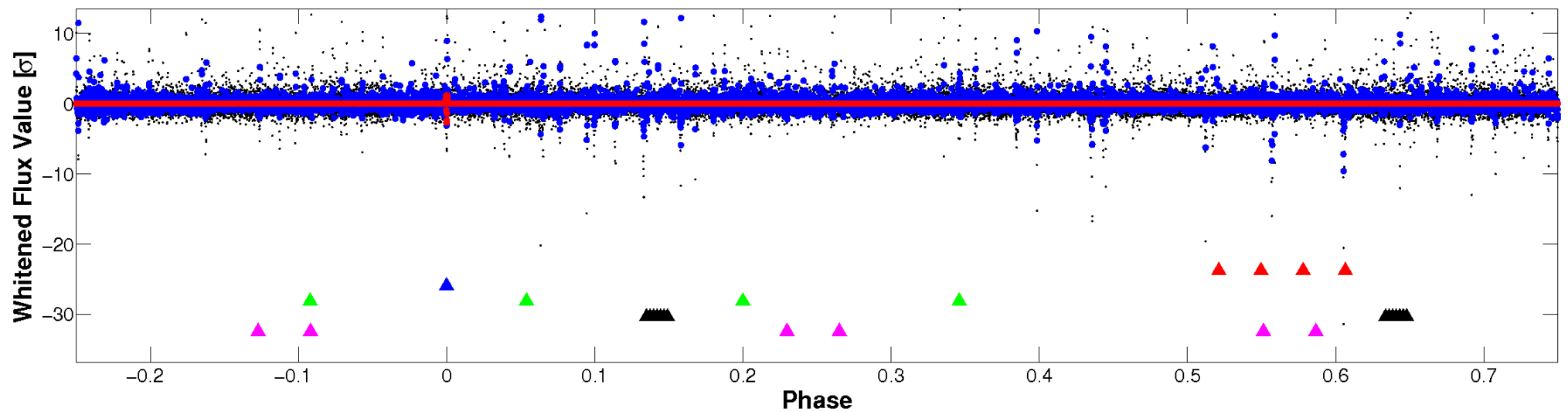


Non-Whitened Vs. Whitened Light Curve

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

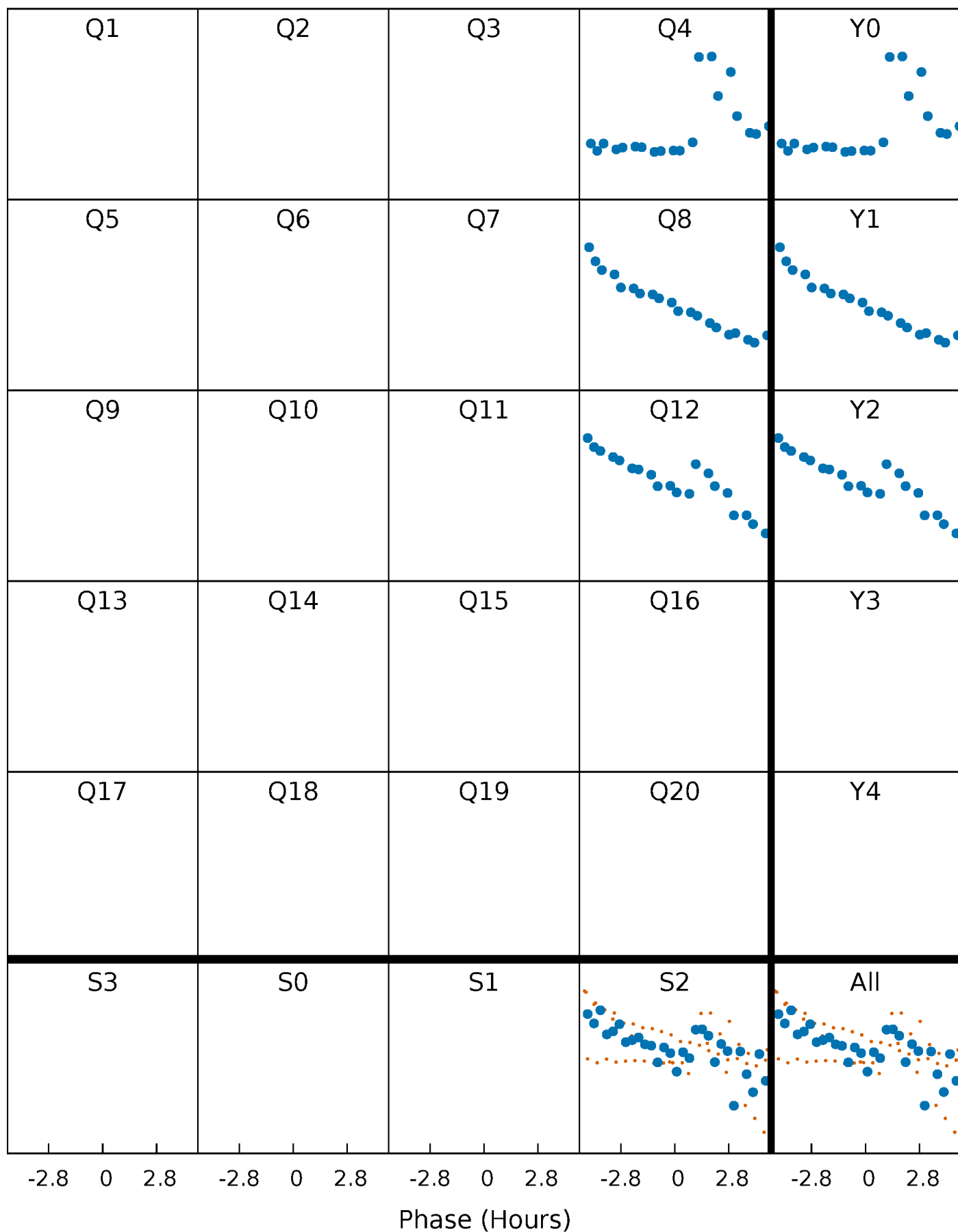


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



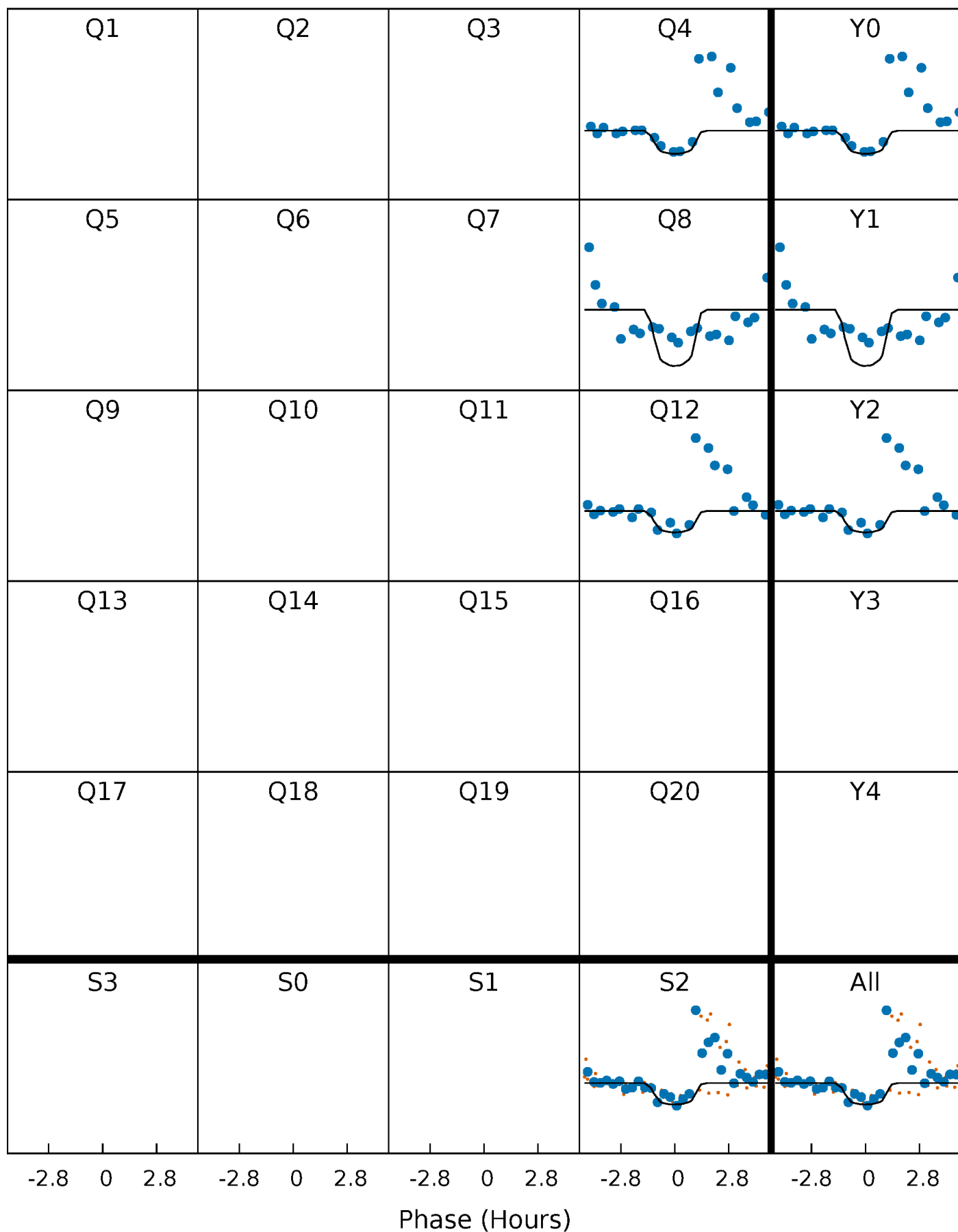
PDC Quarter-Phased Transit Curves

TCE 011555805-02 $P=199.607286$ Days $T_0=169.406964$ (BKJD)



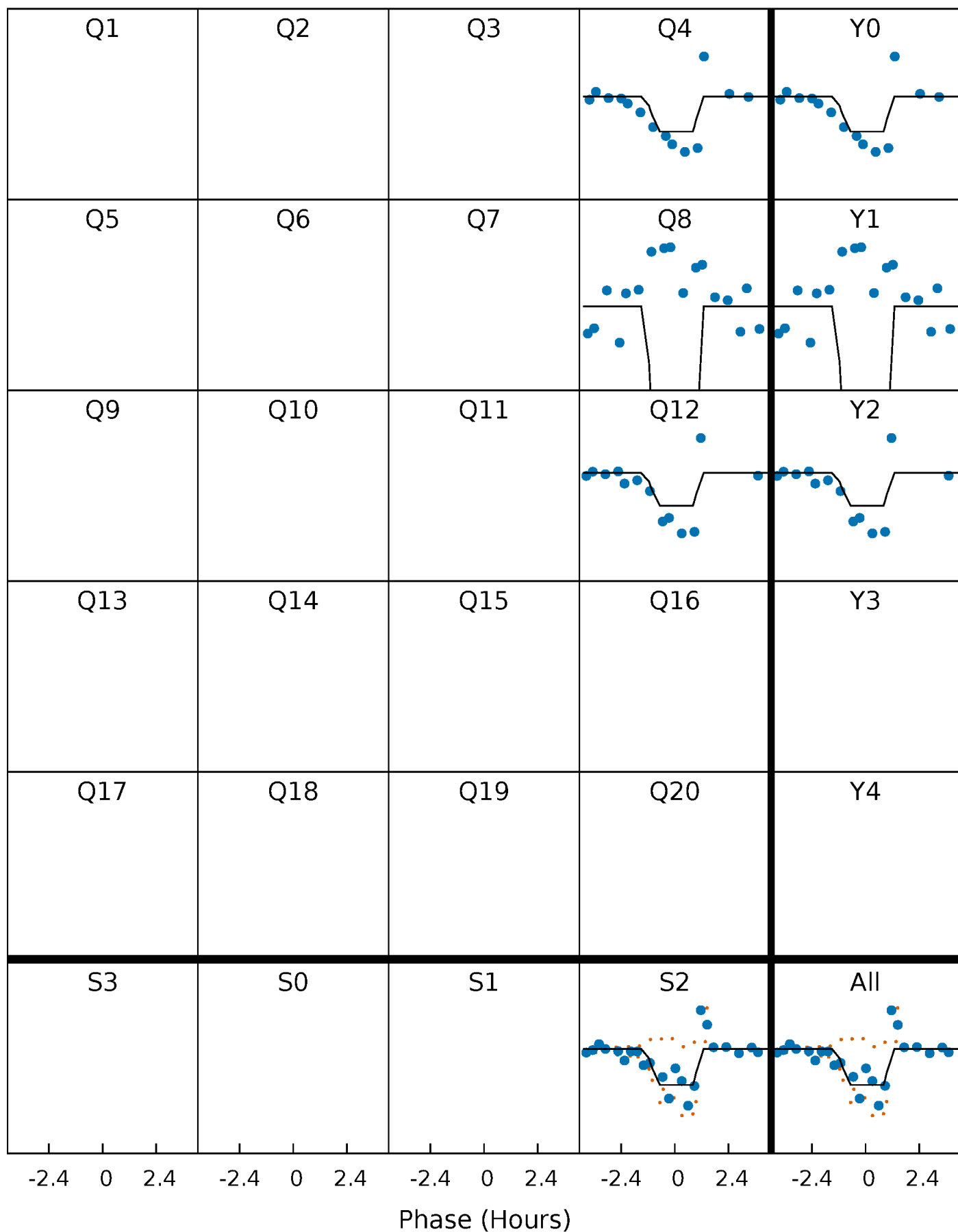
DV Quarter-Phased Transit Curves

TCE 011555805-02 $P=199.607286$ Days $T_0=169.406964$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

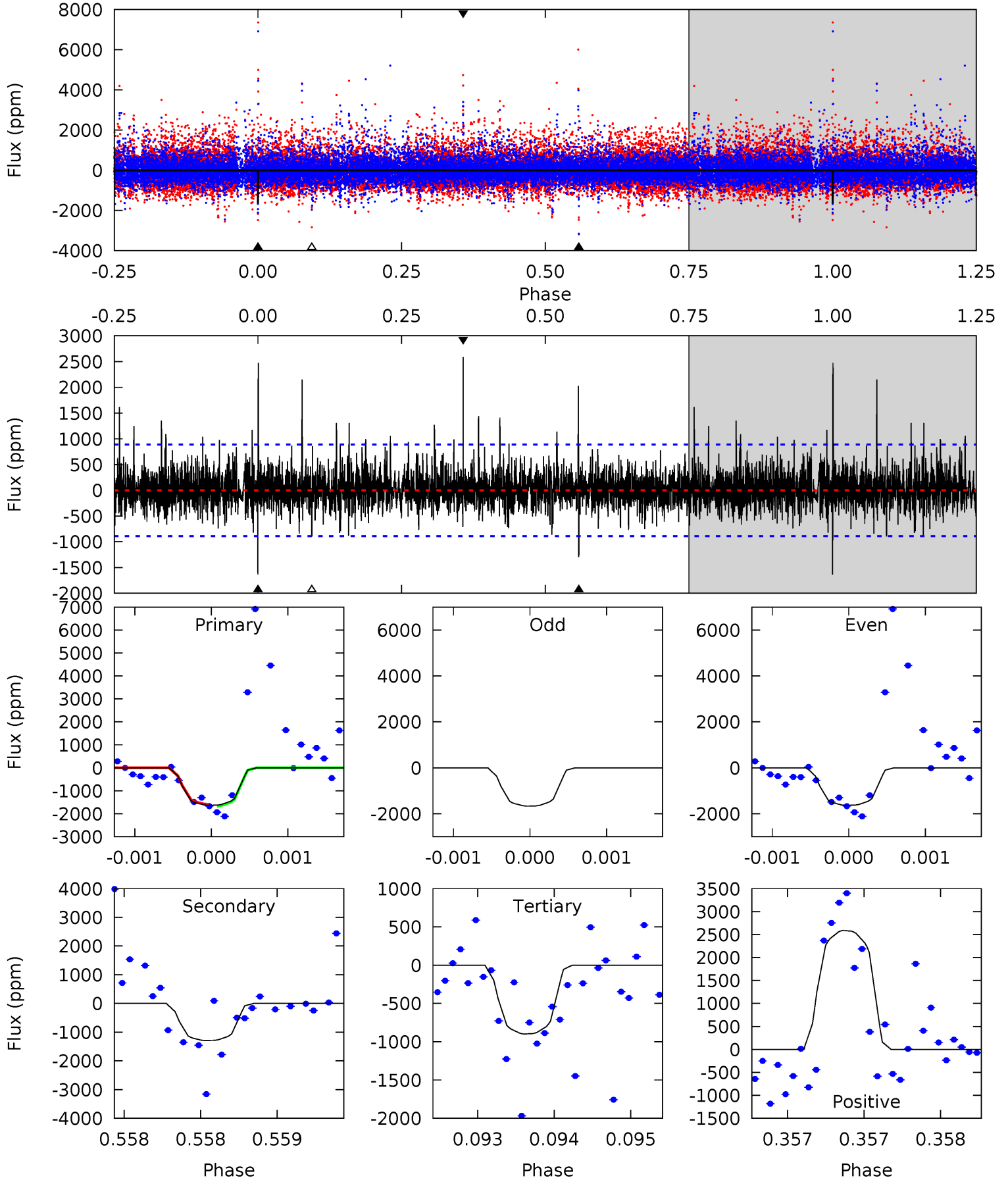
TCE 011555805-02 P=199.607096 Days $T_0=169.404034$ (BKJD)



DV Model-Shift Uniqueness Test

011555805-02, P = 199.607286 Days, E = 169.406964 Days

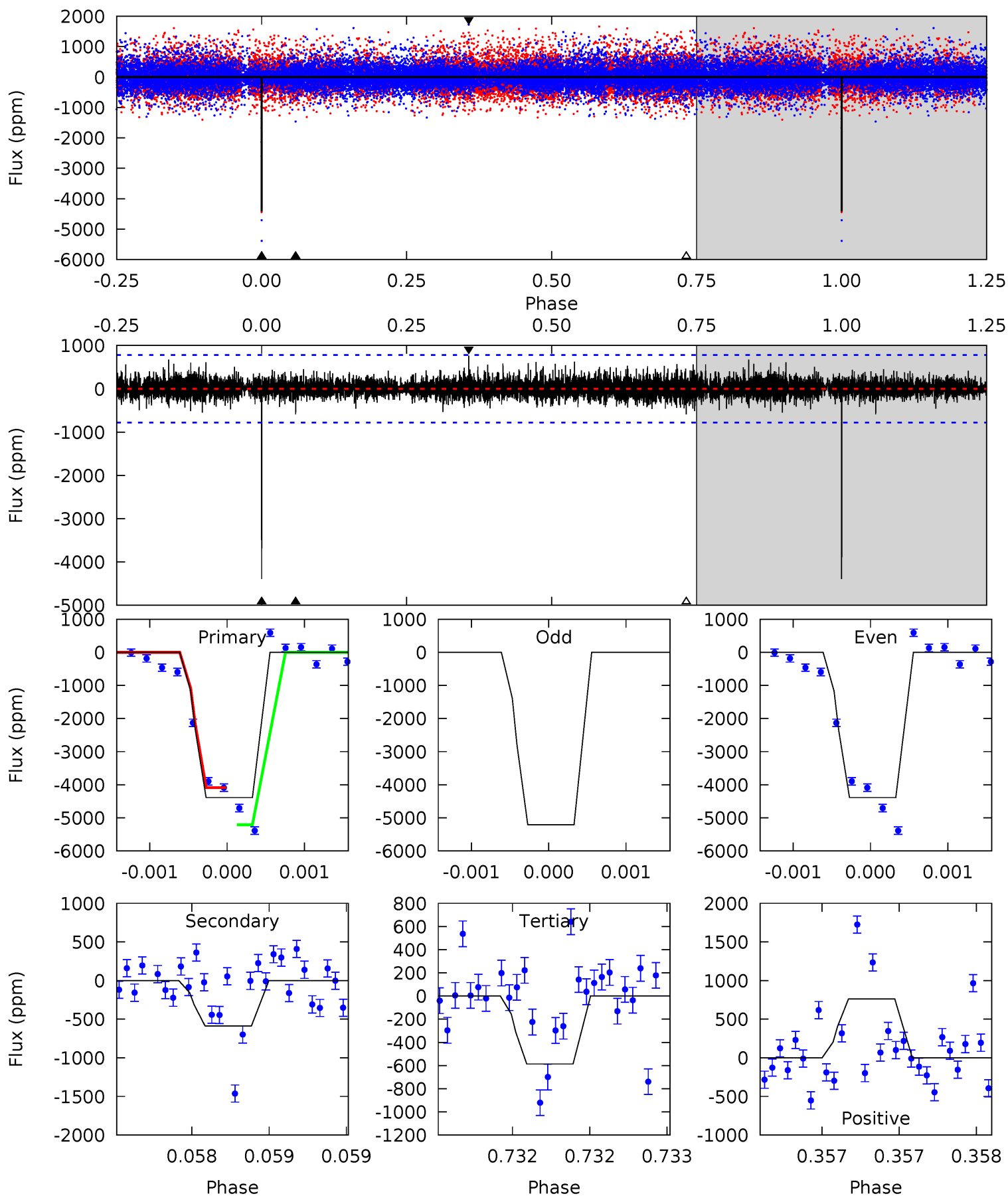
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	8.05	5.59	16.1	5.54	3.43	1.71	4.58	-5.94	2.46	-8.06	0.12	1.11	0.61	0.23



Alt Model-Shift Uniqueness Test

011555805-02, P = 199.607096 Days, E = 169.404034 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.3	4.20	4.19	5.43	5.57	3.47	0.96	27.1	25.9	0.01	-1.23	3.35	0.65	0.15	4.24



Stellar Parameters For KIC 011555805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3954^{+78}_{-94}	$4.738^{+0.032}_{-0.039}$	$-0.200^{+0.200}_{-0.200}$	$0.527^{+0.038}_{-0.038}$	$0.555^{+0.035}_{-0.047}$	$5.324^{+0.857}_{-0.805}$
	+2%/-2%	+1%/-1%	+100%/-100%	+7%/-7%	+6%/-8%	+16%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011555805-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1294 ± 161	$11.77^{+11.01}_{-8.12}$	239^{+6}_{-6}	2392^{+939}_{-319}	1509^{+15959}_{-1109}
Alt.	-589 ± 140	$11.51^{+11.67}_{-7.46}$	239^{+6}_{-6}	2199^{+653}_{-296}	697^{+4938}_{-520}

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 $A_{obs} \gg 1.0$

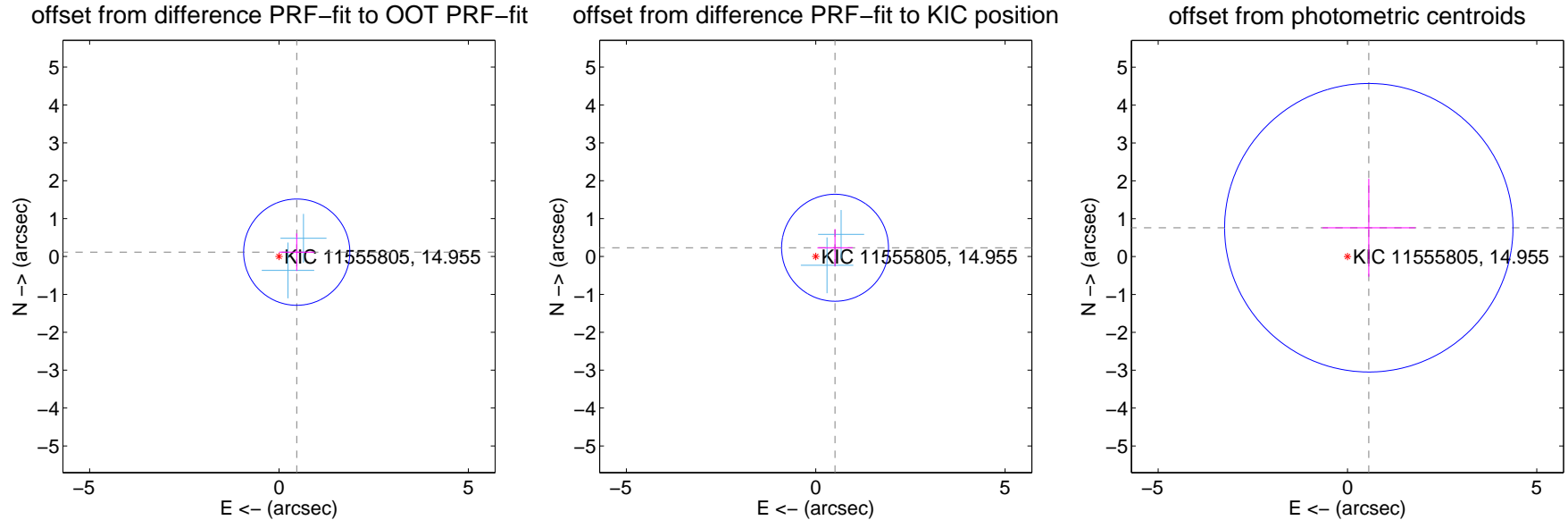
DV Centroid Data

Supplemental centroid analysis for 011555805-02. Kepler magnitude: 14.96. Transit SNR 9.04

There are 2 quarters with good PRF difference image offsets

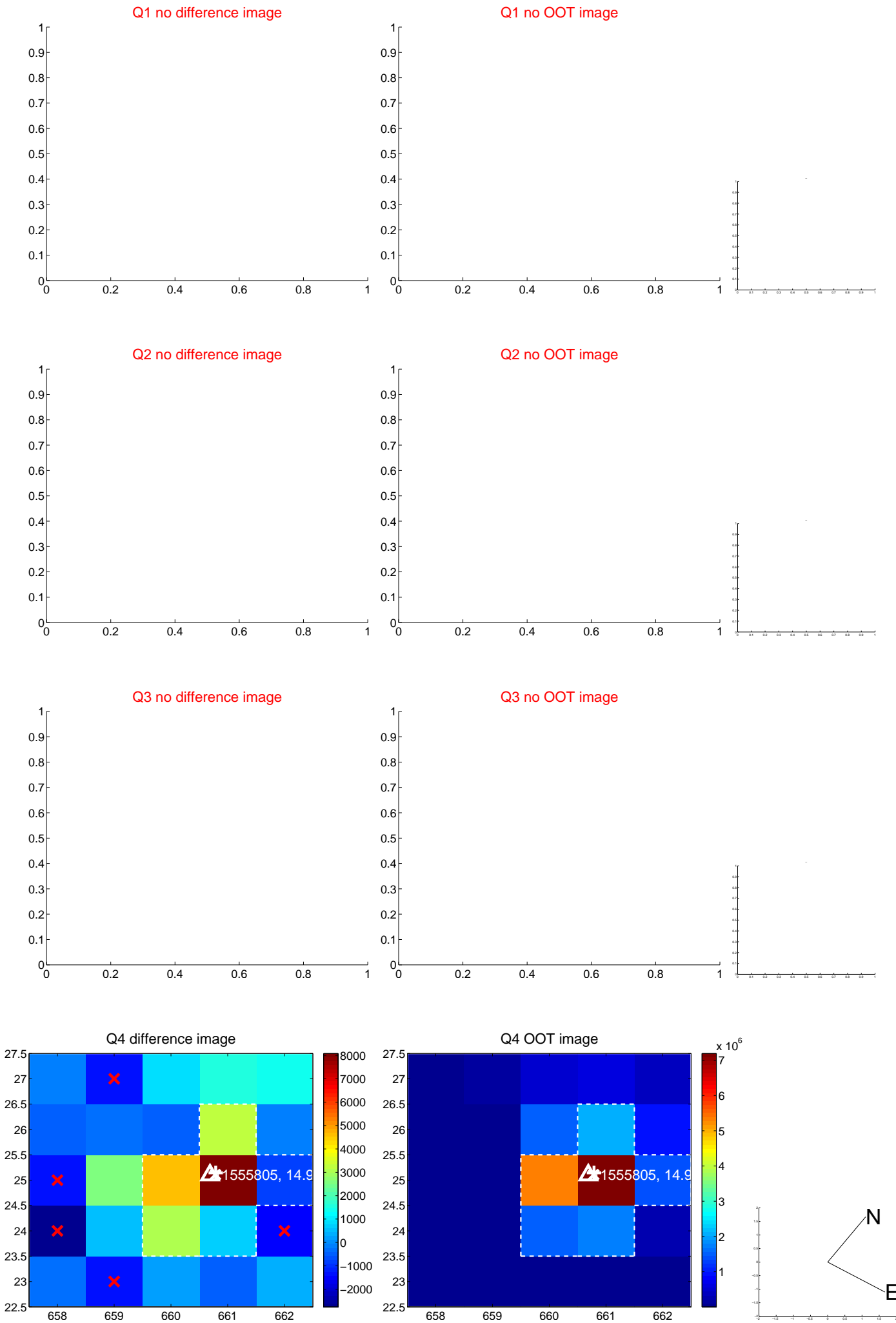
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.483 ± 0.467	1.03	-0.469 ± 0.466	0.115 ± 0.493
PRF-fit source offset from KIC position	0.560 ± 0.471	1.19	-0.510 ± 0.466	0.231 ± 0.493
photometric centroid source offset	0.95 ± 1.27	0.75	-0.56 ± 1.23	0.76 ± 1.29

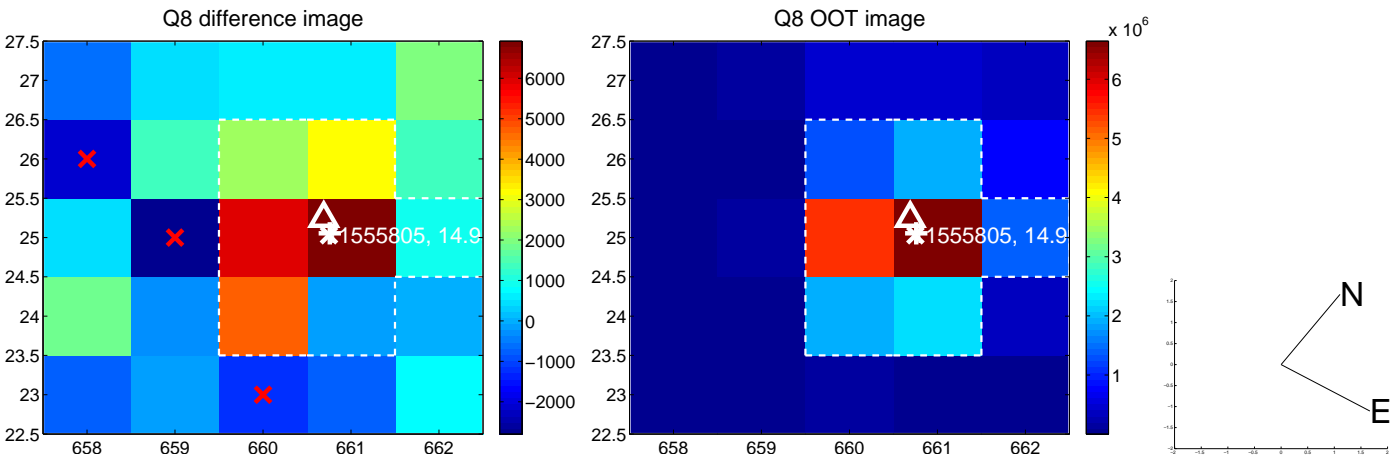


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

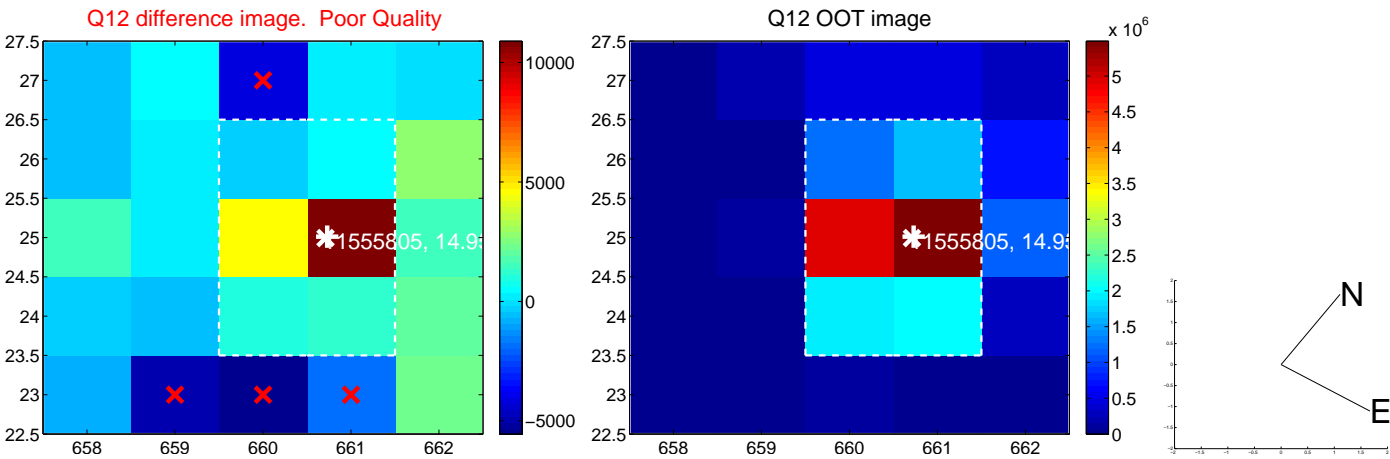
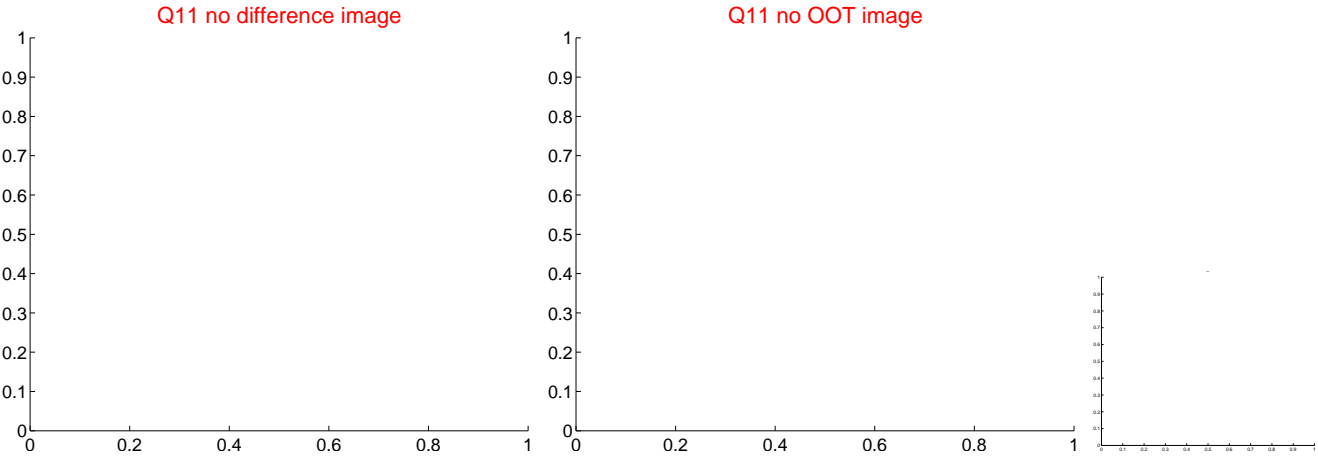
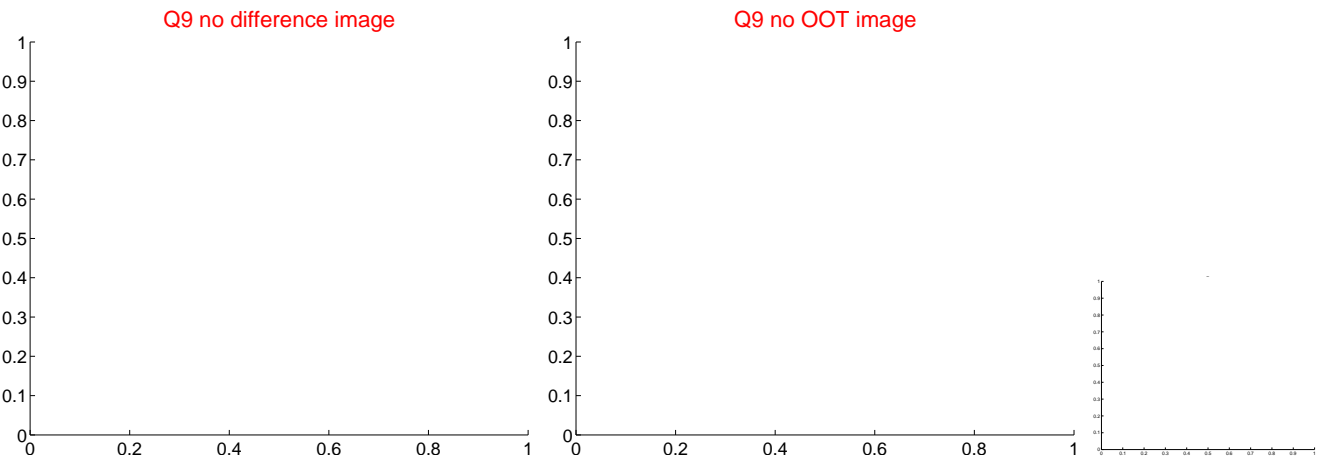
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



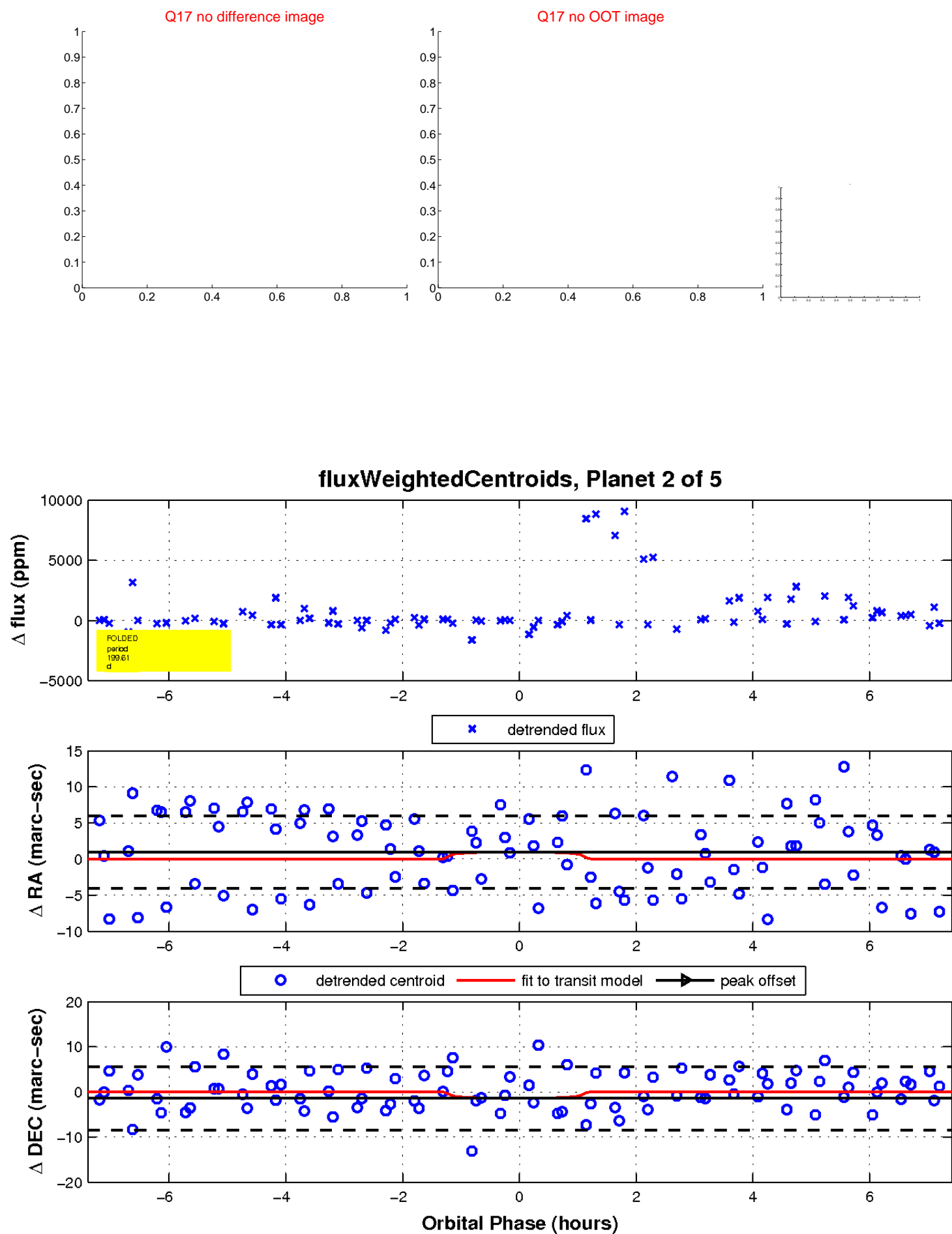
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

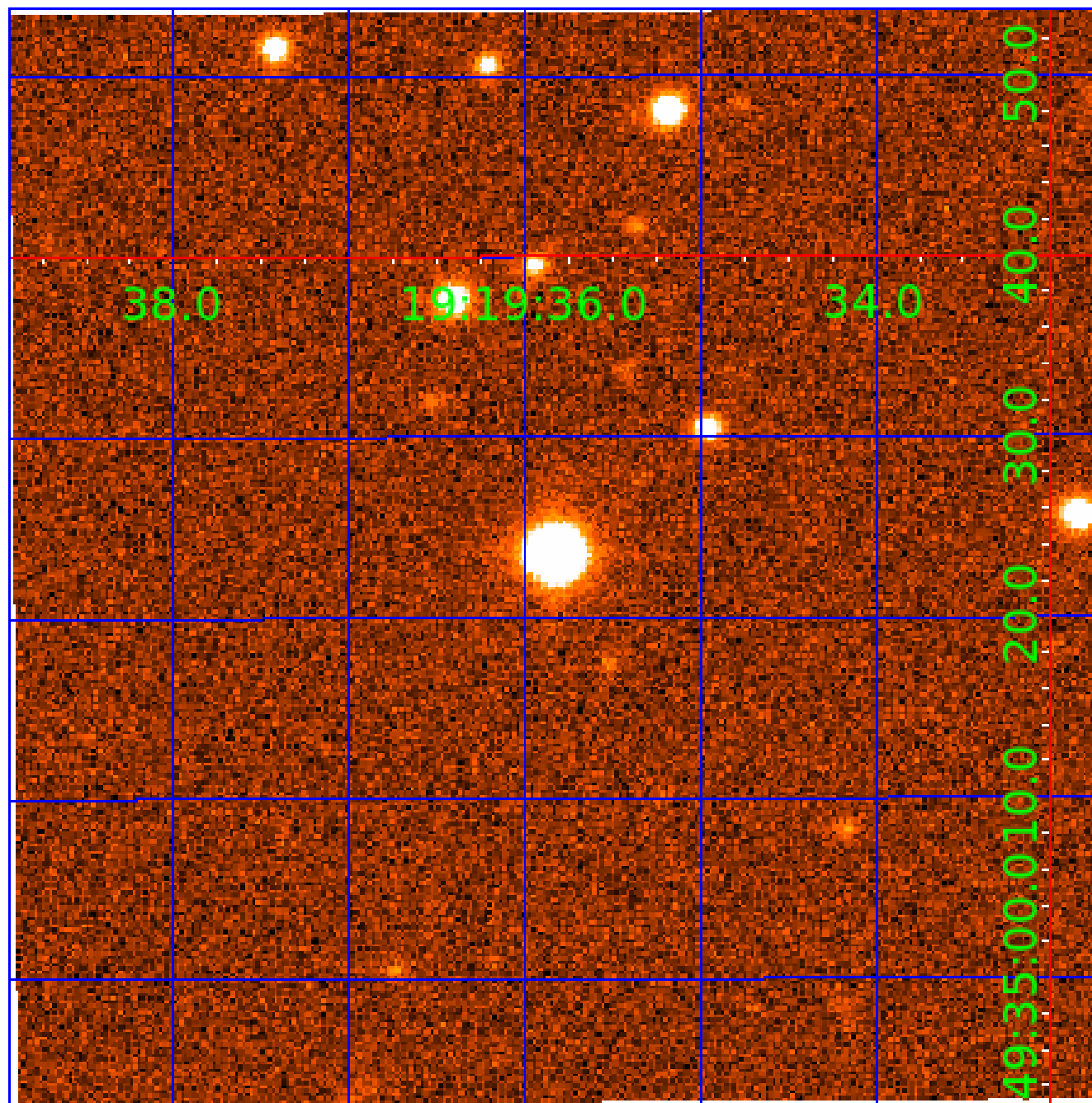


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011555805

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})
011555805-01	OBS	No	404.897784	273.433825	2197.4	4.370	15.9	8.1	0.53	3954	2.45	0.08
011555805-02	OBS	No	199.607286	169.406964	2366.4	2.474	15.8	9.0	0.53	3954	2.57	0.20
011555805-03	OBS	No	370.067697	438.075148	1628.2	2.053	14.4	5.5	0.53	3954	2.16	0.09
011555805-04	OBS	No	99.567575	199.174454	1606.5	5.416	12.2	8.7	0.53	3954	2.19	0.51
011555805-05	OBS	No	263.790251	222.321857	2080.7	3.114	11.1	7.9	0.53	3954	2.45	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011555805-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011555805-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

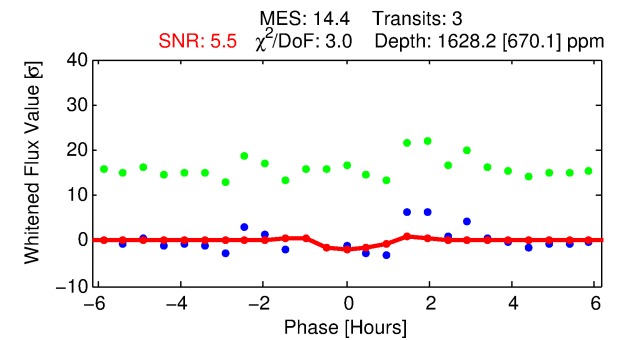
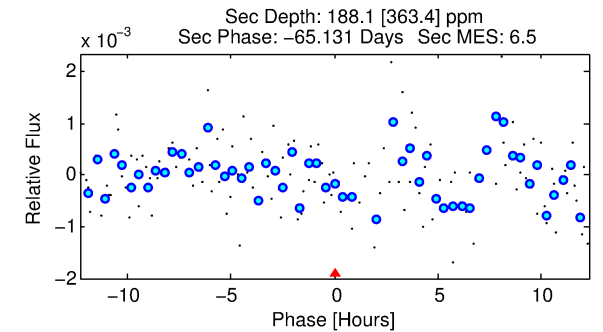
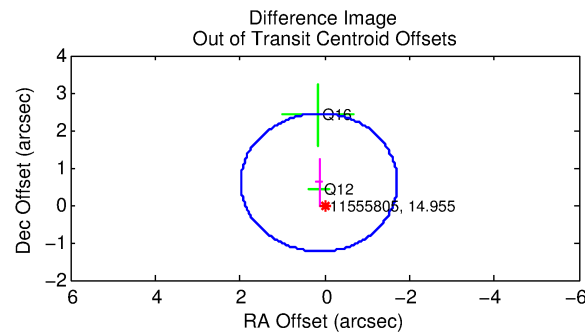
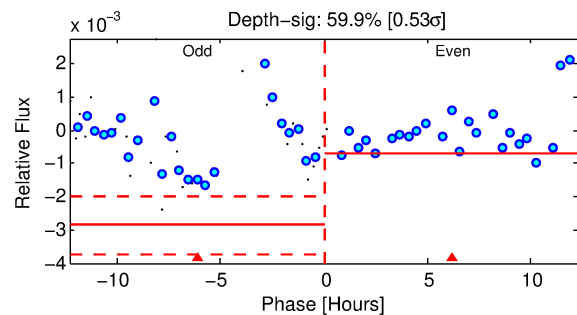
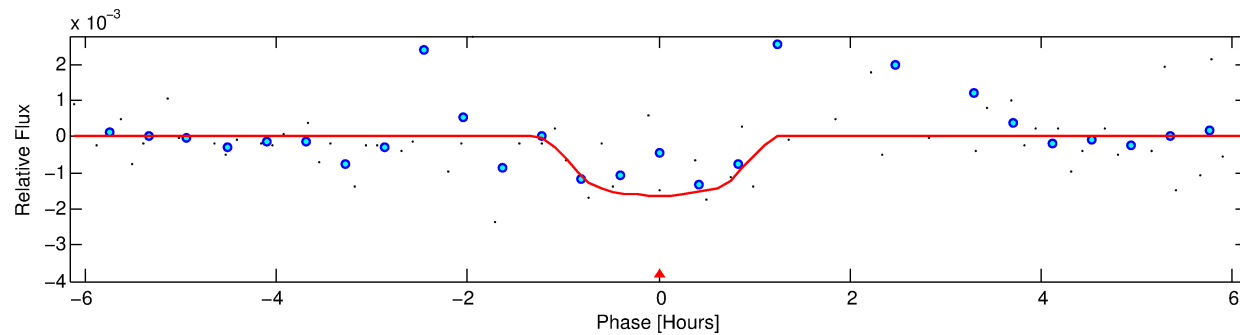
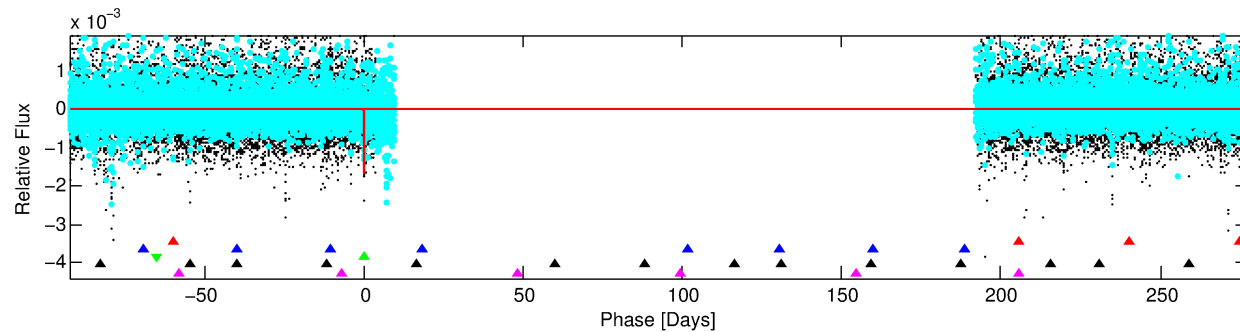
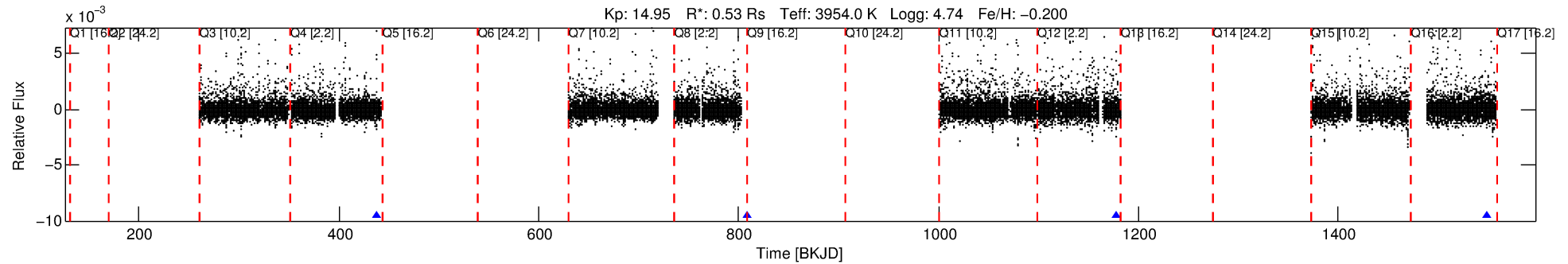
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011555805-03

No Significant Match Found

DV One-Page Summary

KIC: 11555805 Candidate: 3 of 5 Period: 370.068 d



DV Fit Results:

Period = 370.06770 [0.00584] d
Epoch = 438.0751 [0.0111] BKJD
Rp/R* = 0.0375 [0.1337]
a/R* = 1289.07 [18884.18]
b = 0.45 [26.48]
Seff = 0.09 [0.01]
Teq = 139 [4] K
Rp = 2.16 [7.69] Re
a = 0.8288 [0.0469] AU
Ag = 15267.35 [112761.63] [0.14 σ]
Teffp = 2391 [4414] K [0.51 σ]

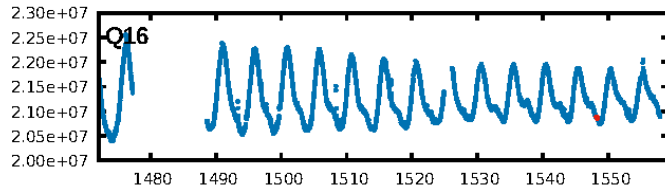
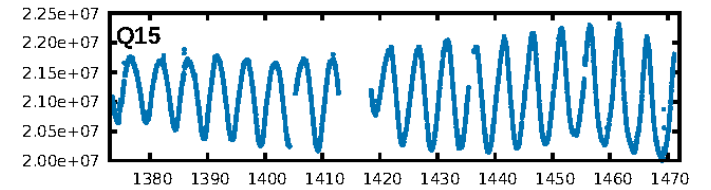
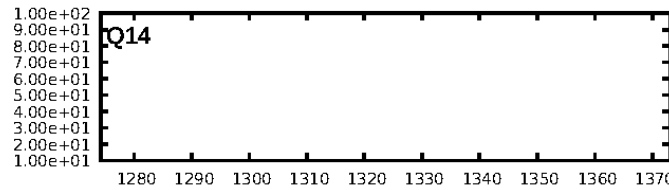
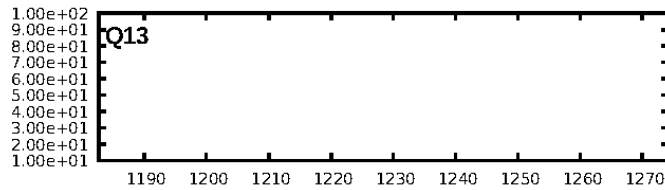
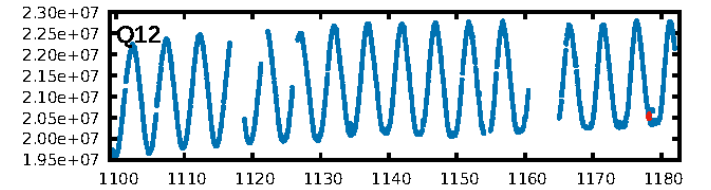
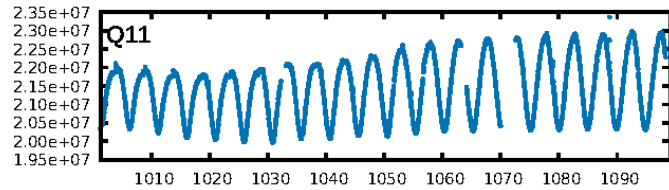
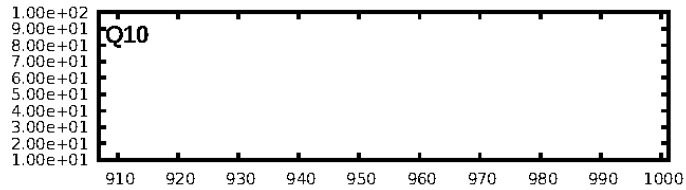
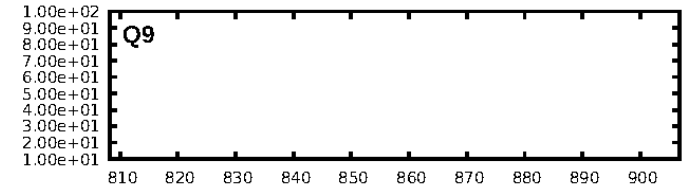
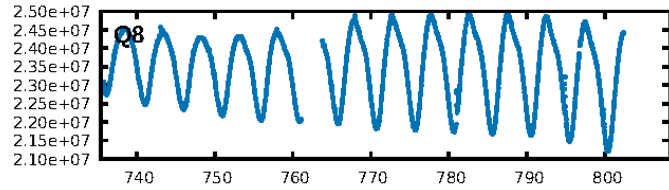
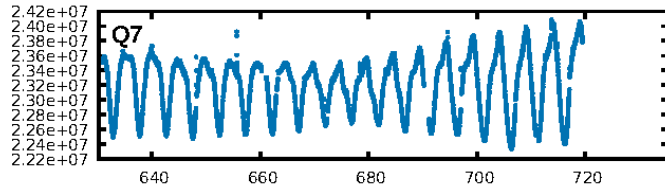
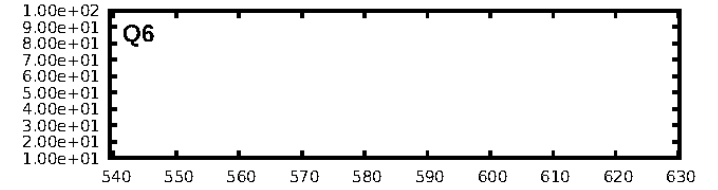
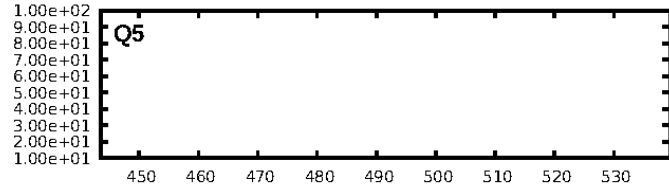
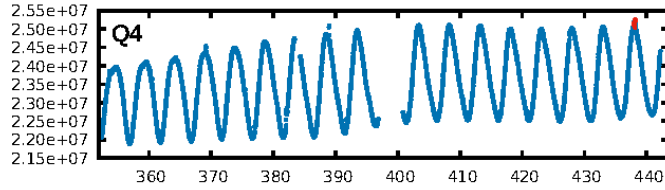
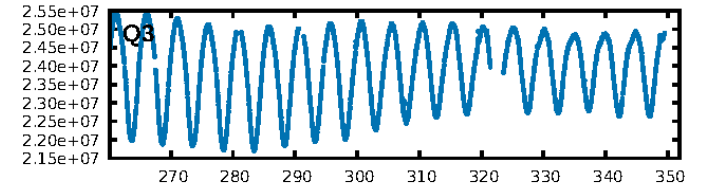
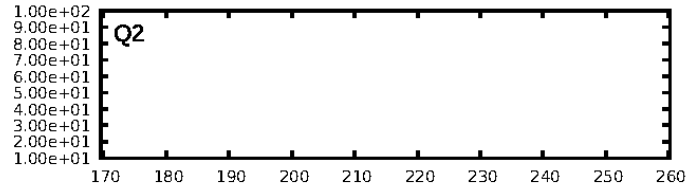
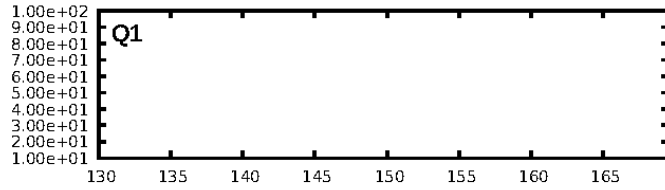
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [683.81 σ]
LongPeriod-sig: 100.0% [173.11 σ]
ModelChiSquare2-sig: 2.7%
ModelChiSquareGof-sig: 50.6%
Bootstrap-pfa: 3.25e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2449
Centroid-sig: 69.9%
Centroid-so: 1.072 arcsec [0.59 σ]
OotOffset-rm: 0.617 arcsec [1.00 σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 0.718 arcsec [1.16 σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

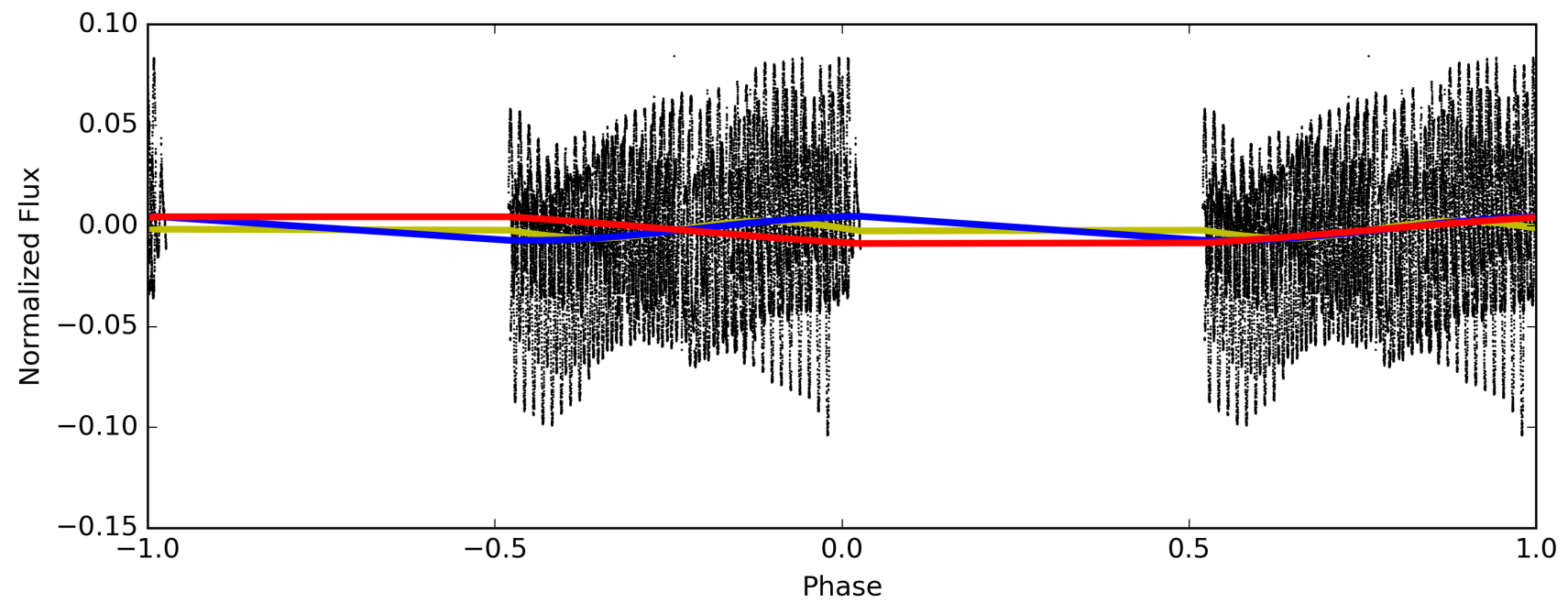
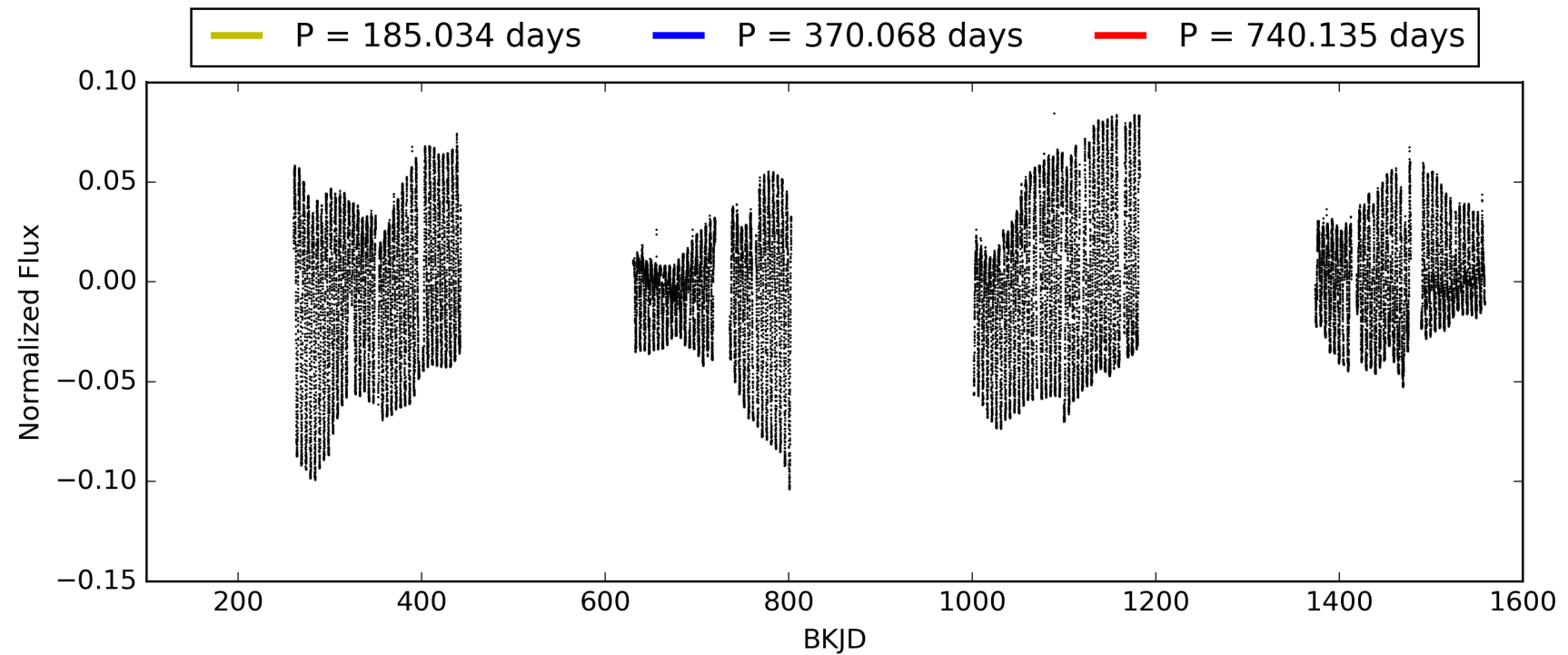
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:36:16 Z

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

TCE 011555805-03, PDC Light Curves

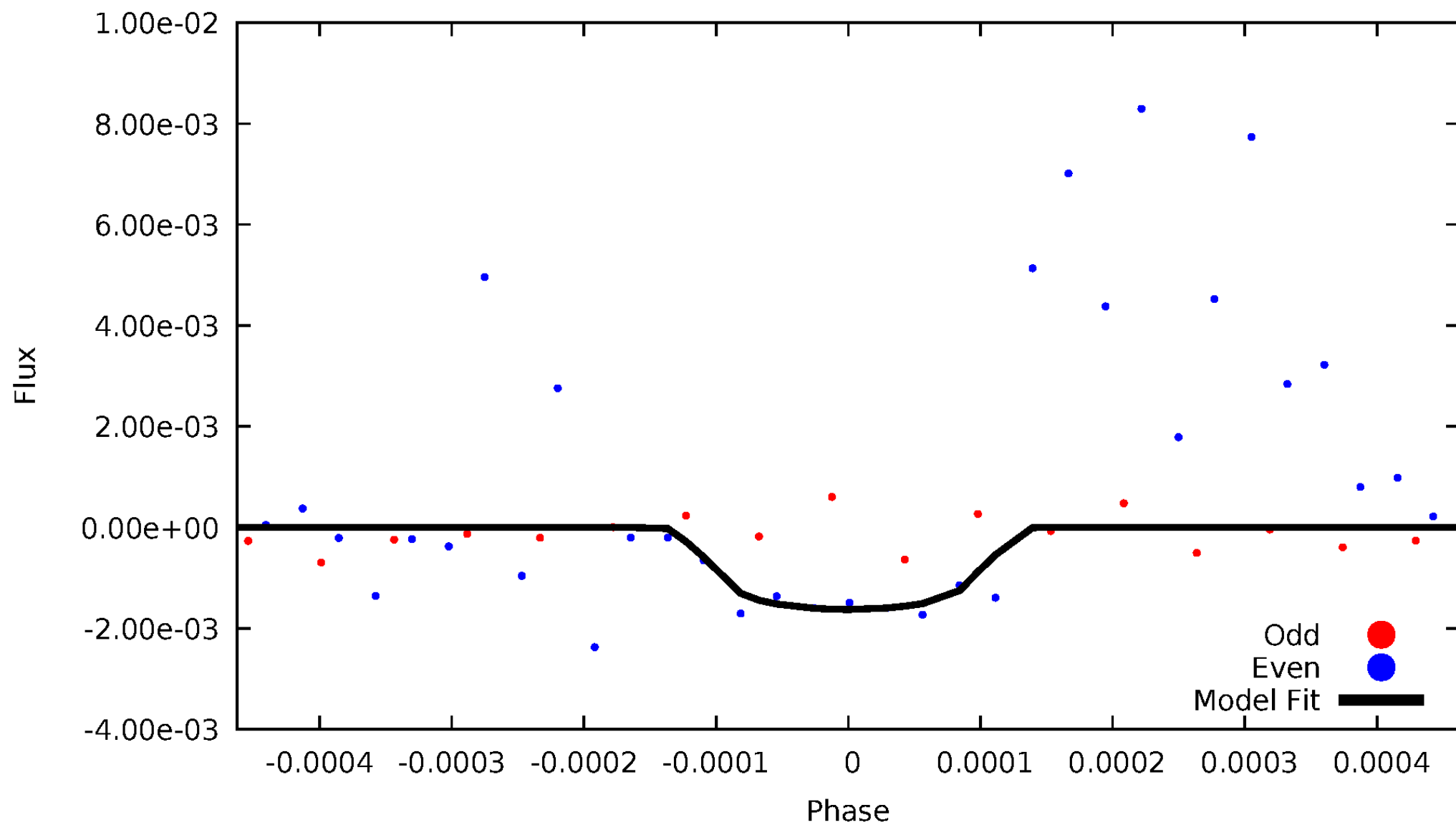


TCE 011555805-03



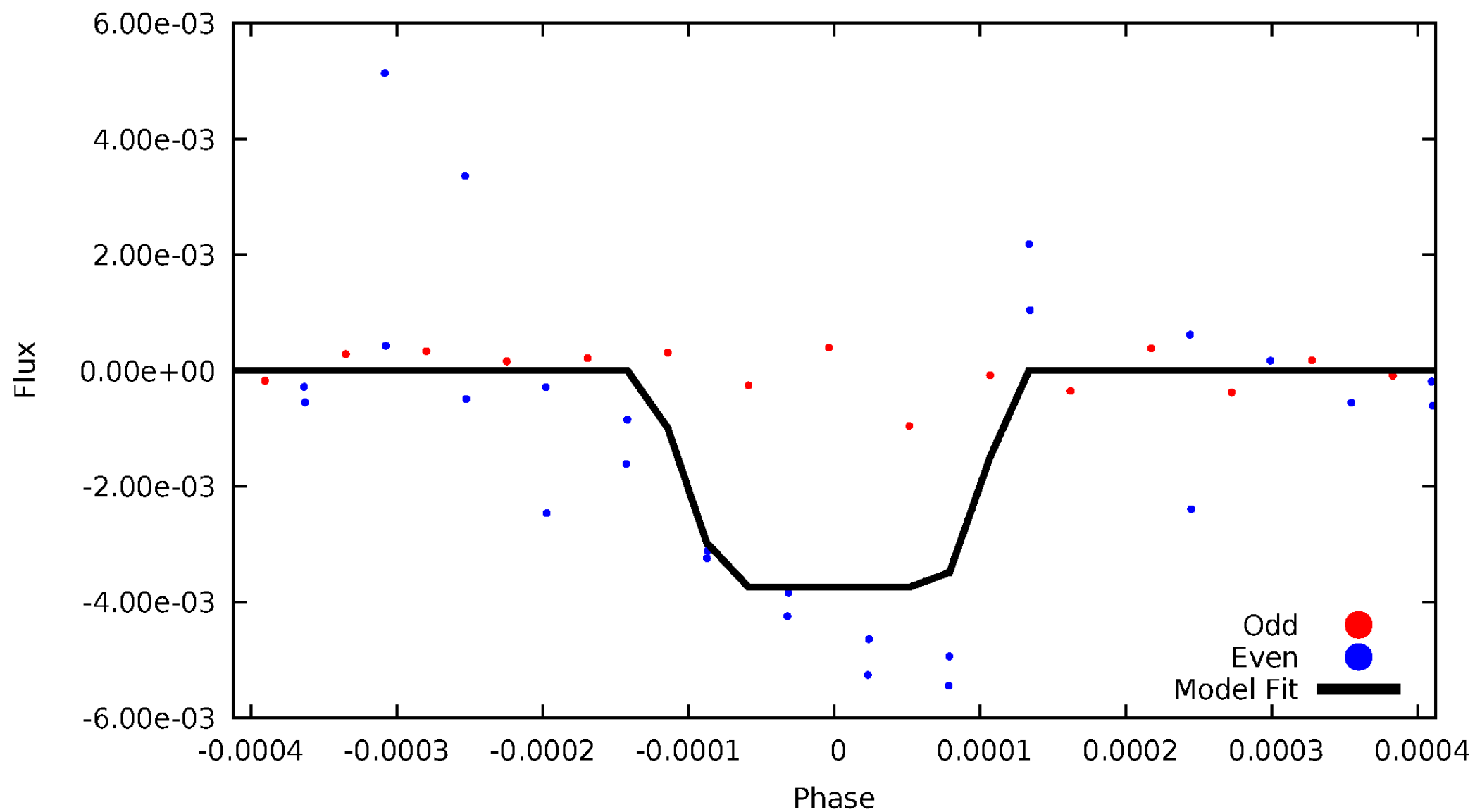
DV Odd/Even

TCE 011555805-03



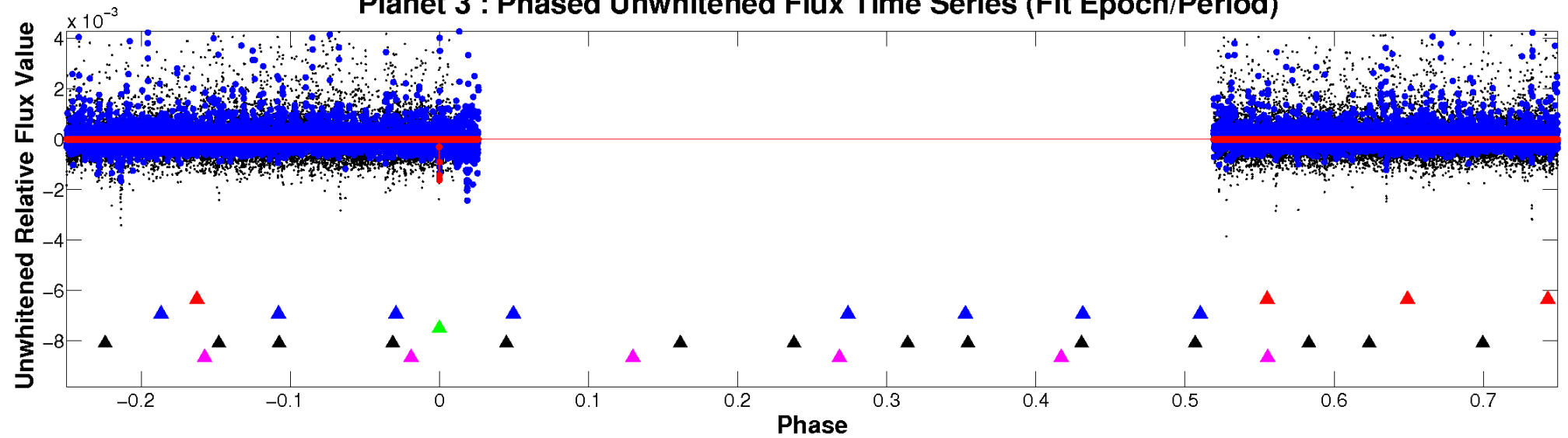
ALT Odd/Even

TCE 011555805-03

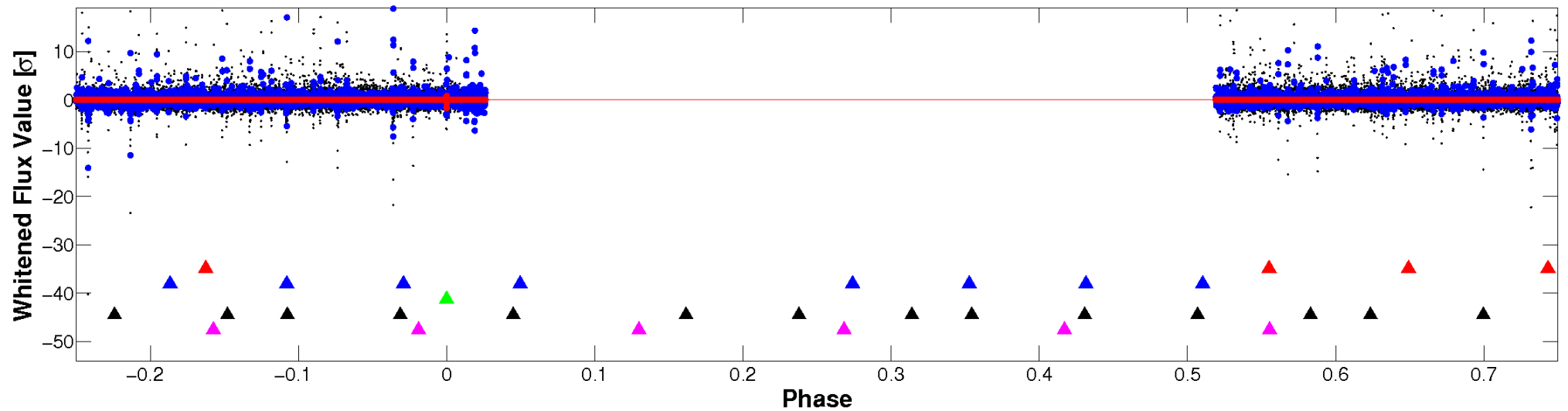


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

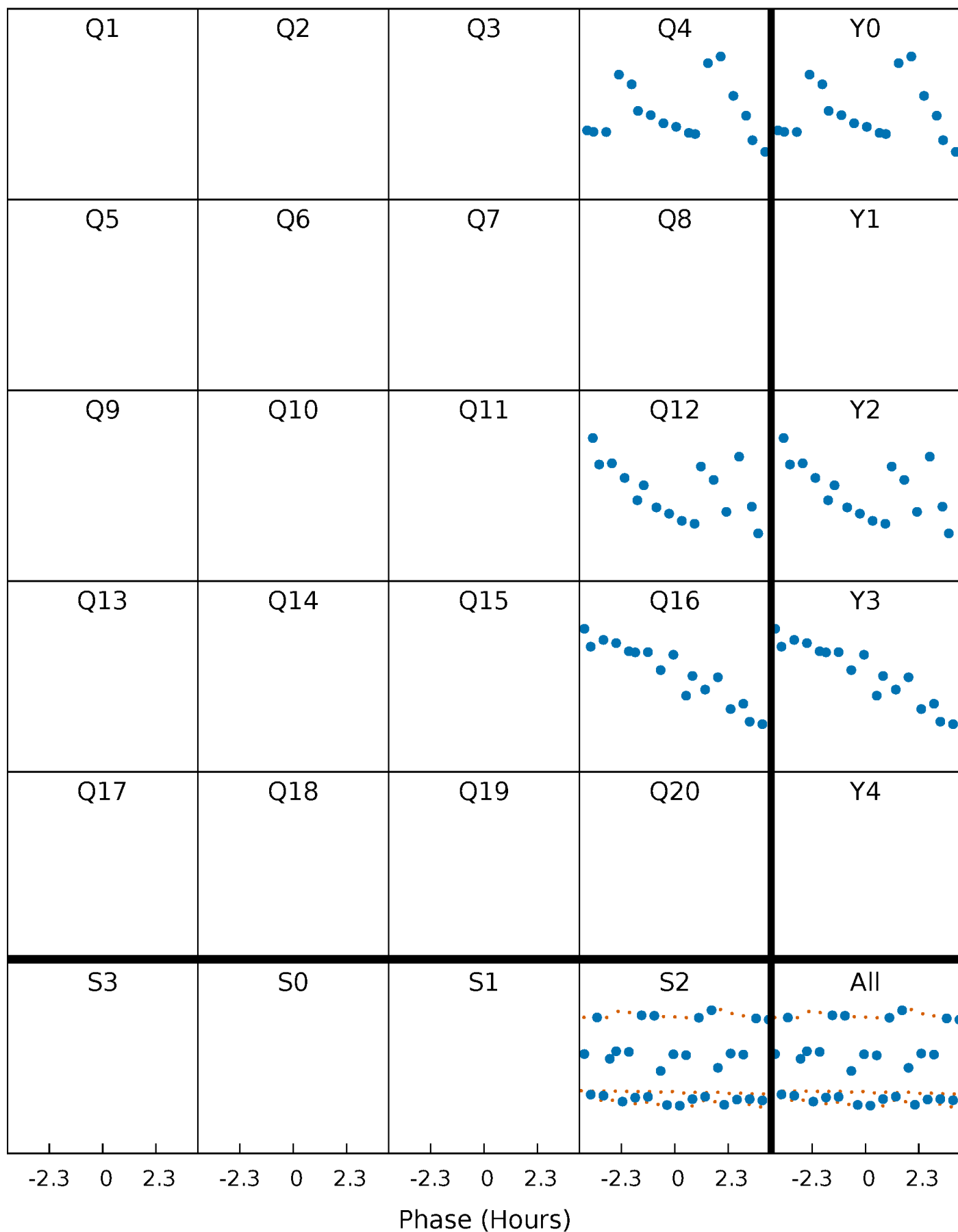


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



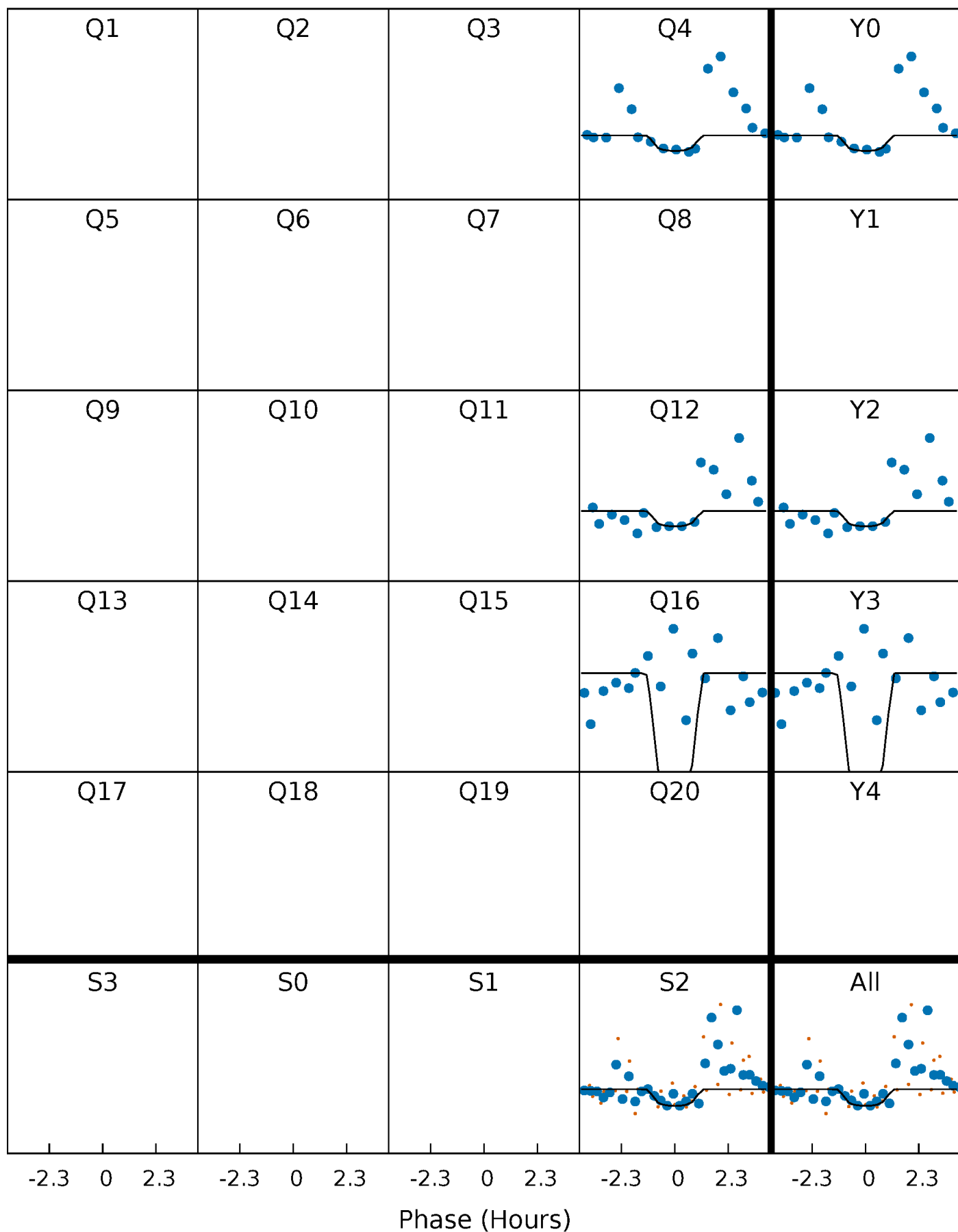
PDC Quarter-Phased Transit Curves

TCE 011555805-03 P=370.067697 Days $T_0=438.075148$ (BKJD)



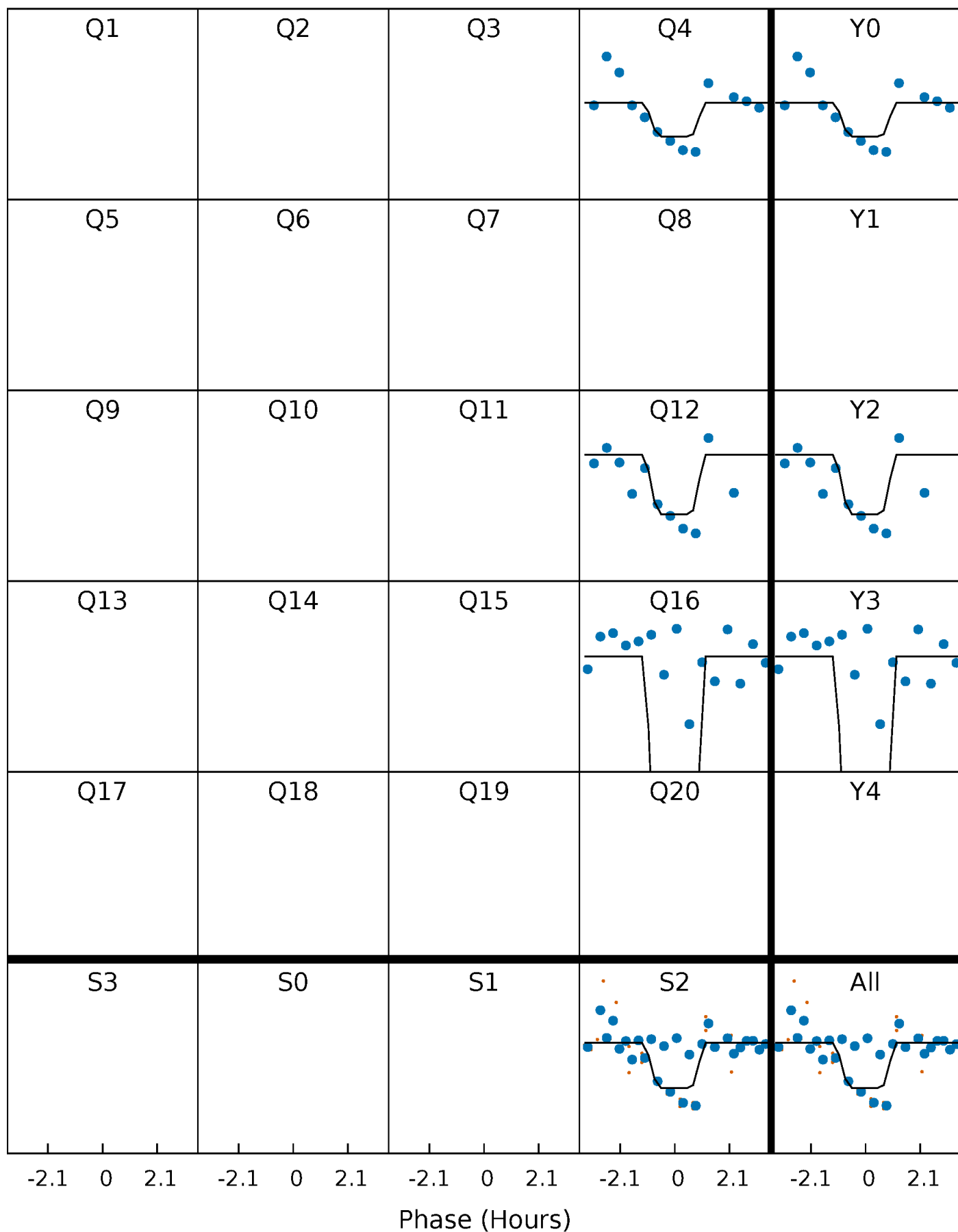
DV Quarter-Phased Transit Curves

TCE 011555805-03 $P=370.067697$ Days $T_0=438.075148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

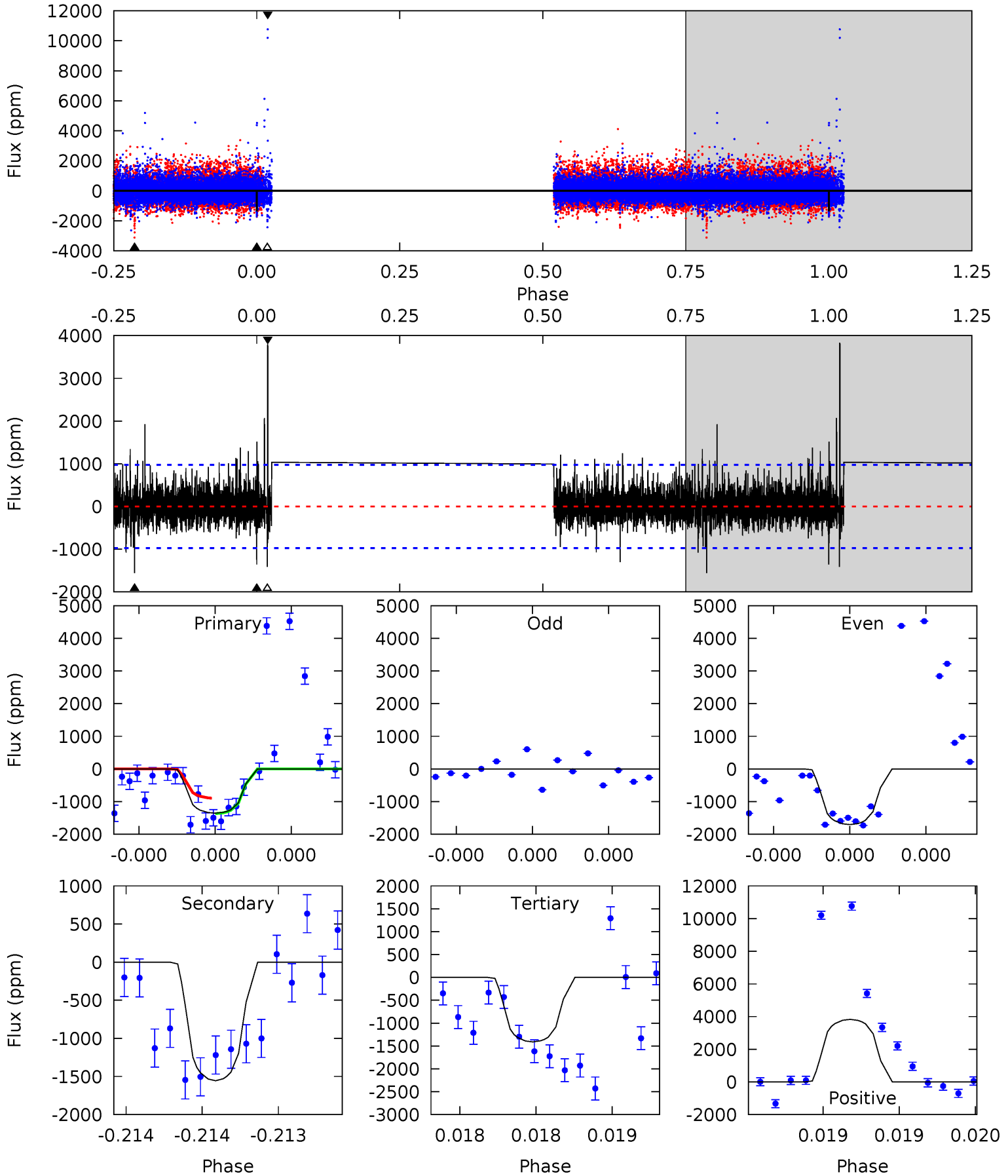
TCE 011555805-03 P=370.062538 Days $T_0=438.087408$ (BKJD)



DV Model-Shift Uniqueness Test

011555805-03, P = 370.067697 Days, E = 68.007451 Days

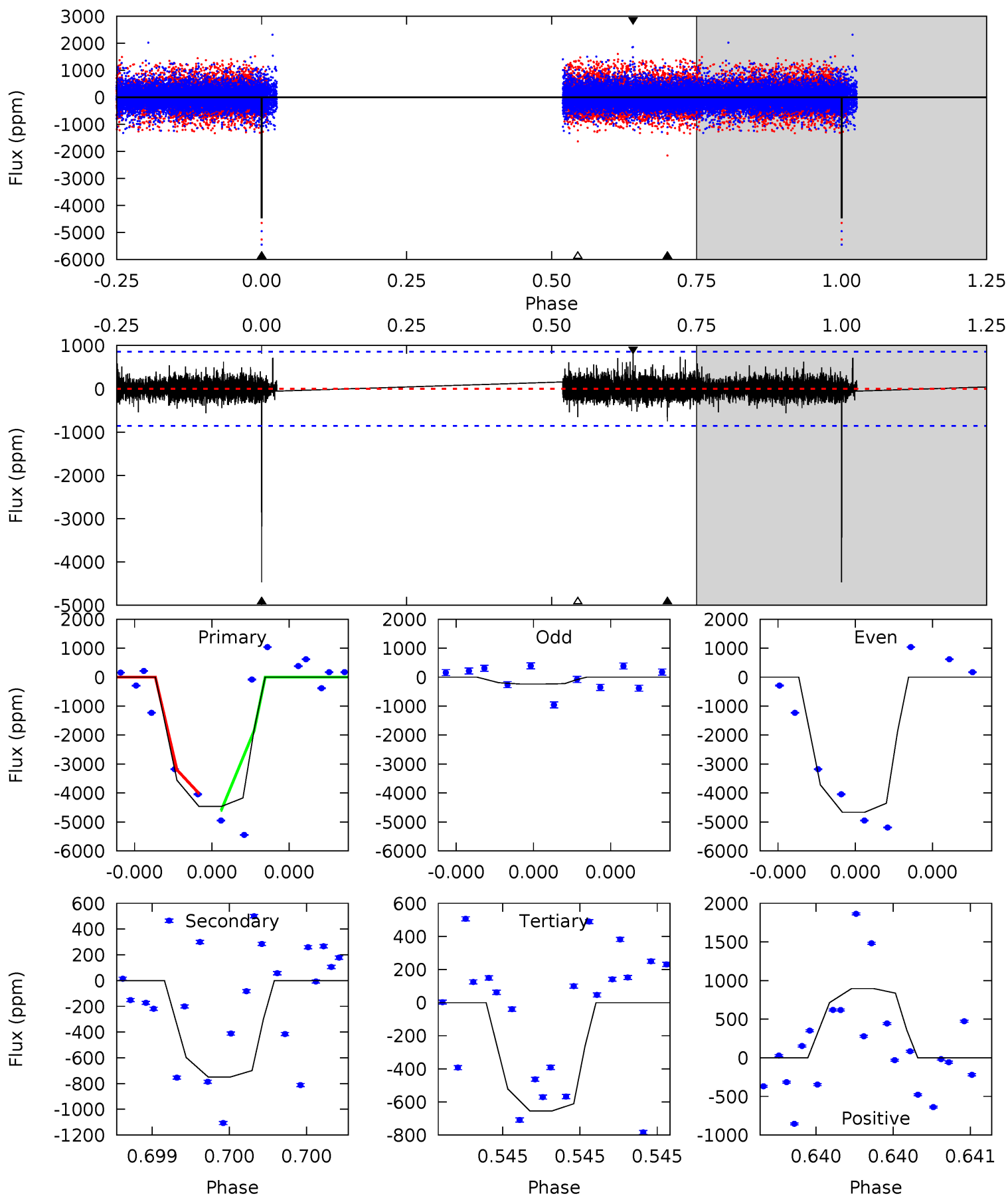
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.89	9.06	8.22	22.3	5.68	3.64	1.60	-0.33	-14.4	0.85	-13.2	3.94	0.67	0.71	1.15



Alt Model-Shift Uniqueness Test

011555805-03, P = 370.062538 Days, E = 68.024870 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	5.02	4.39	6.01	5.74	3.73	0.89	25.6	24.0	0.63	-0.99	17.0	0.72	0.17	0



Stellar Parameters For KIC 011555805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3954^{+78}_{-94}	$4.738^{+0.032}_{-0.039}$	$-0.200^{+0.200}_{-0.200}$	$0.527^{+0.038}_{-0.038}$	$0.555^{+0.035}_{-0.047}$	$5.324^{+0.857}_{-0.805}$
	+2%/-2%	+1%/-1%	+100%/-100%	+7%/-7%	+6%/-8%	+16%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011555805-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1557 ± 172	$6.45^{+5.95}_{-4.40}$	195^{+5}_{-5}	2861^{+1252}_{-433}	$13773^{+122277}_{-9831}$
Alt.	-749 ± 149	$6.91^{+6.39}_{-4.77}$	195^{+5}_{-5}	2568^{+1019}_{-392}	5797^{+59157}_{-4307}

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

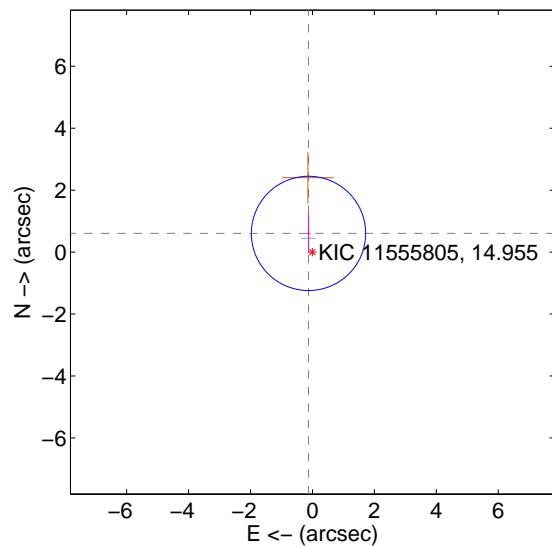
Supplemental centroid analysis for 011555805-03. Kepler magnitude: 14.96. Transit SNR 5.53

There are 1 quarters with good PRF difference image offsets

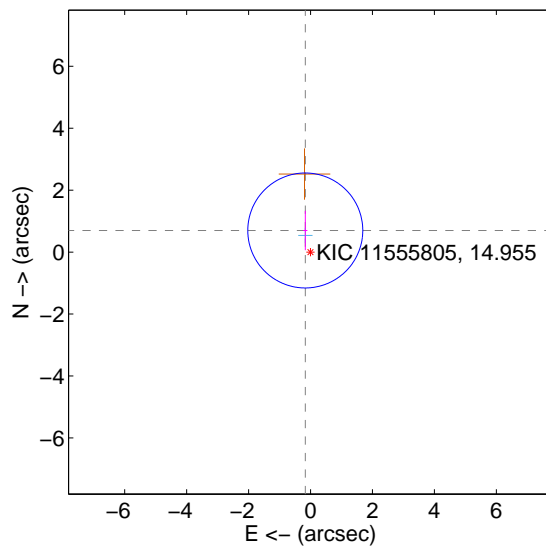
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.617 ± 0.615	1.00	0.127 ± 0.067	0.604 ± 0.628
PRF-fit source offset from KIC position	0.718 ± 0.619	1.16	0.169 ± 0.067	0.698 ± 0.637
photometric centroid source offset	1.07 ± 1.81	0.59	0.66 ± 1.78	0.84 ± 1.83

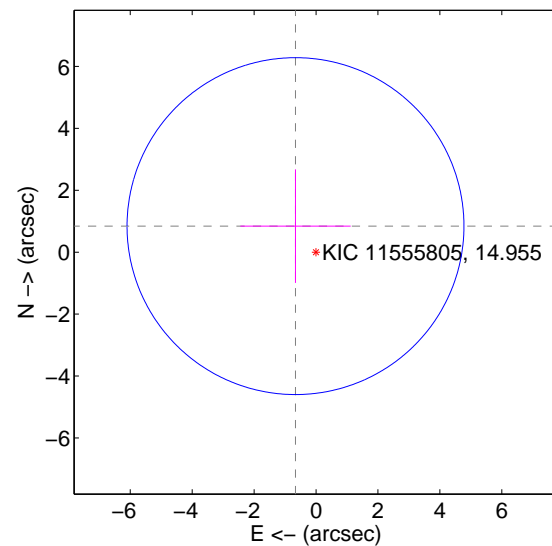
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

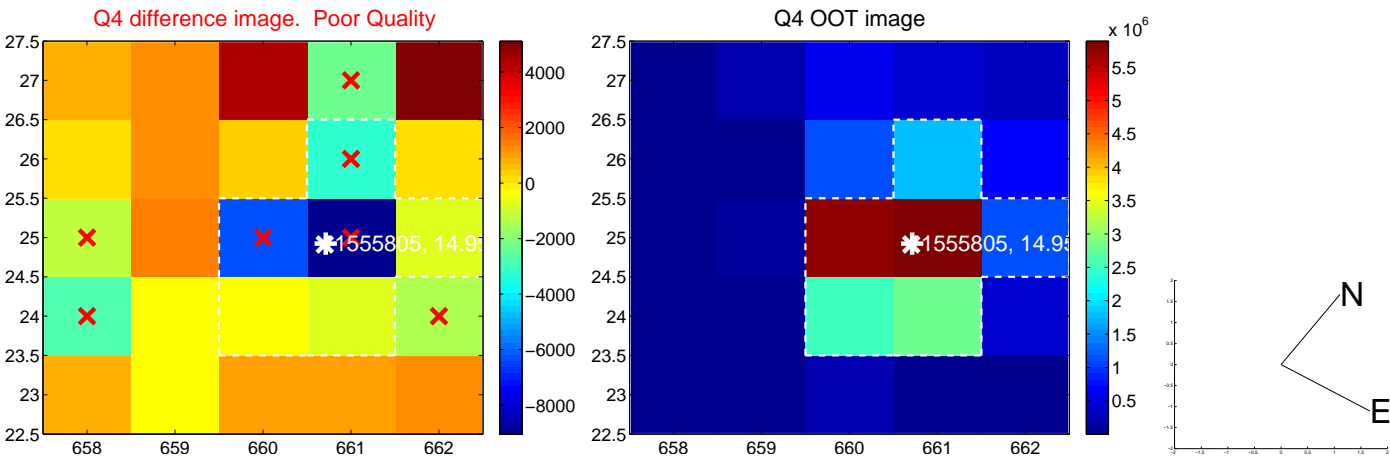
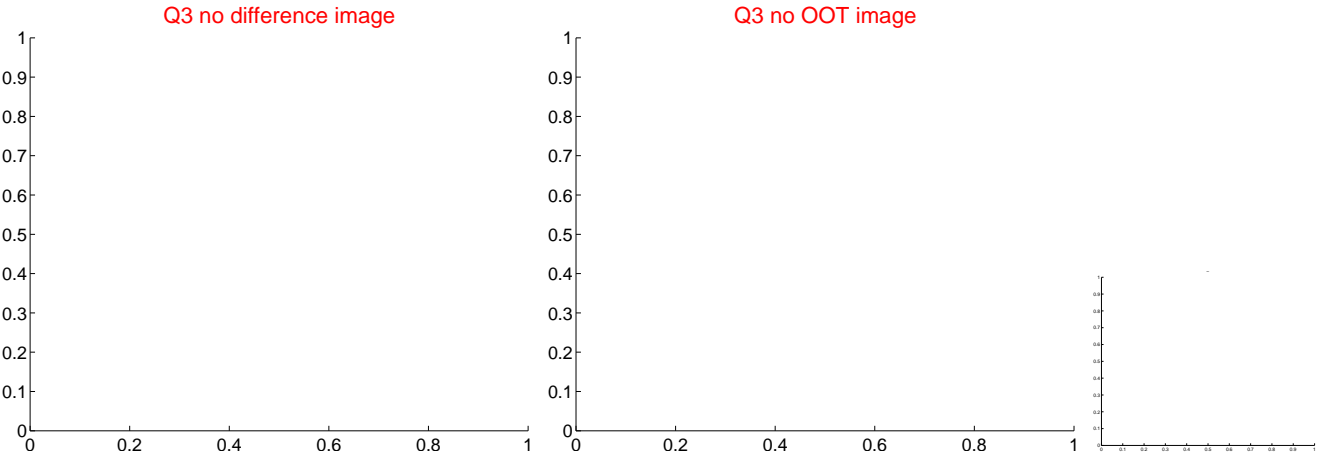
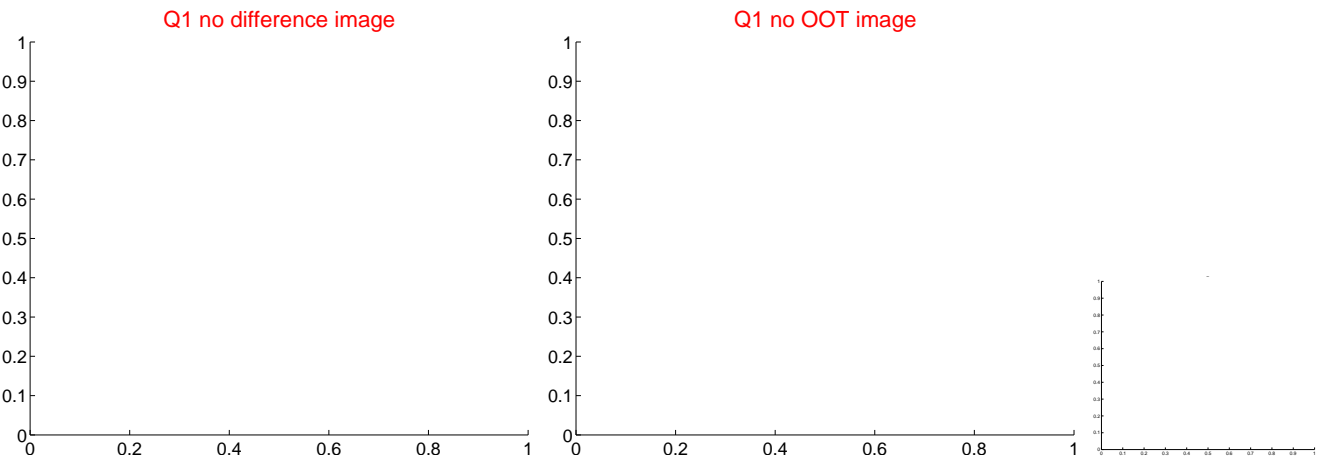


offset from photometric centroids



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.

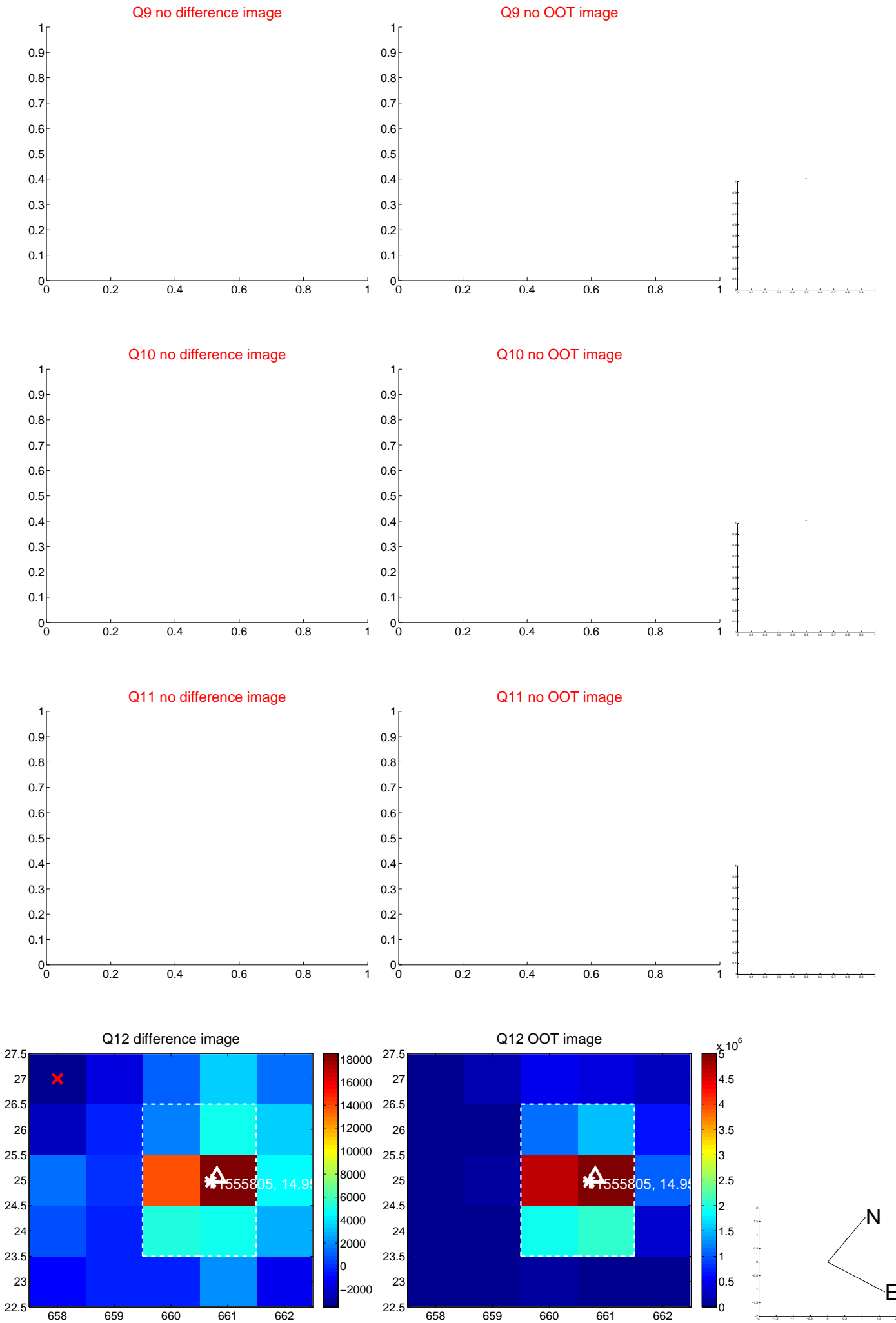
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



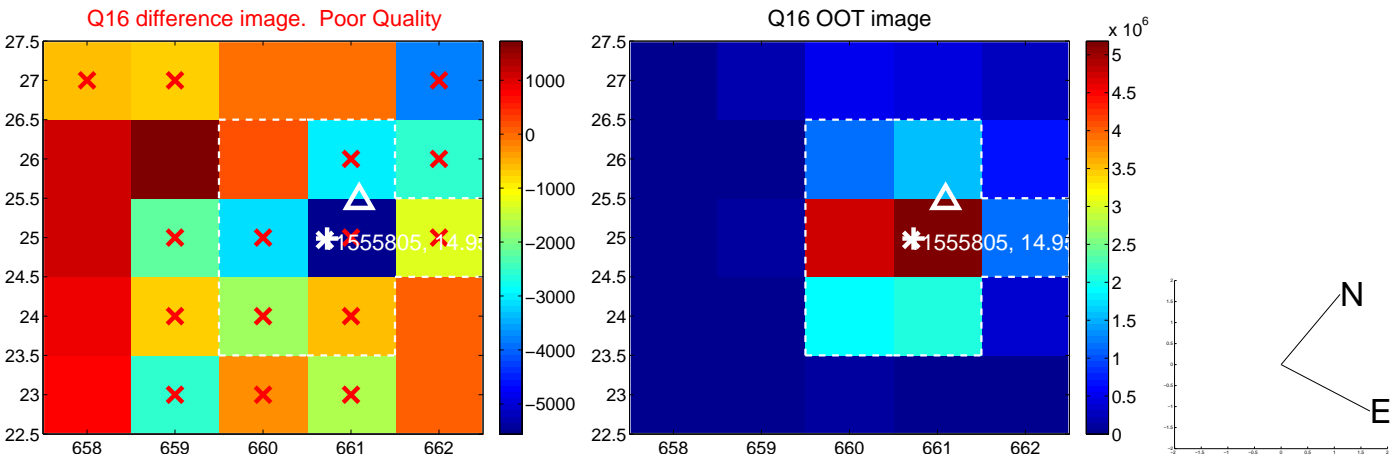
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



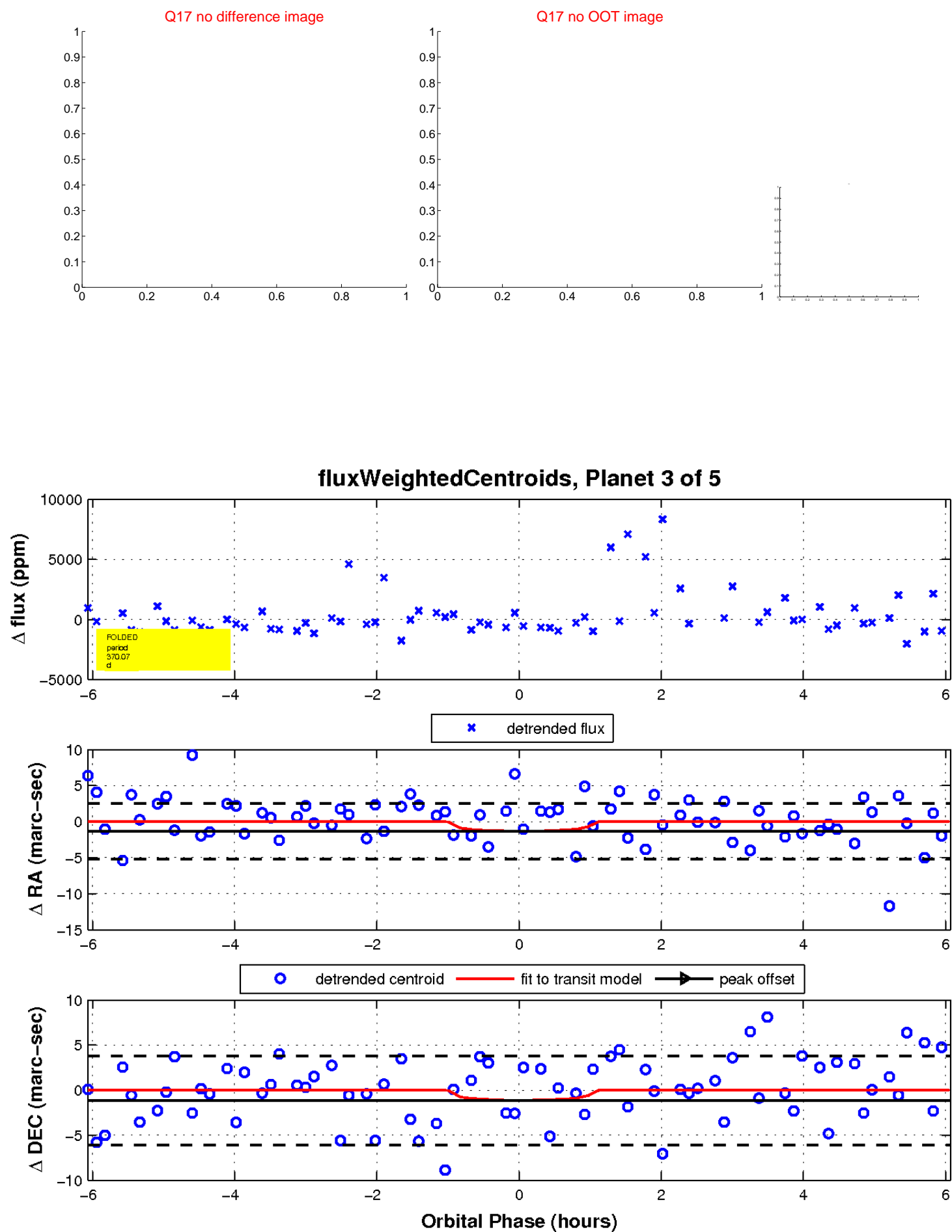
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

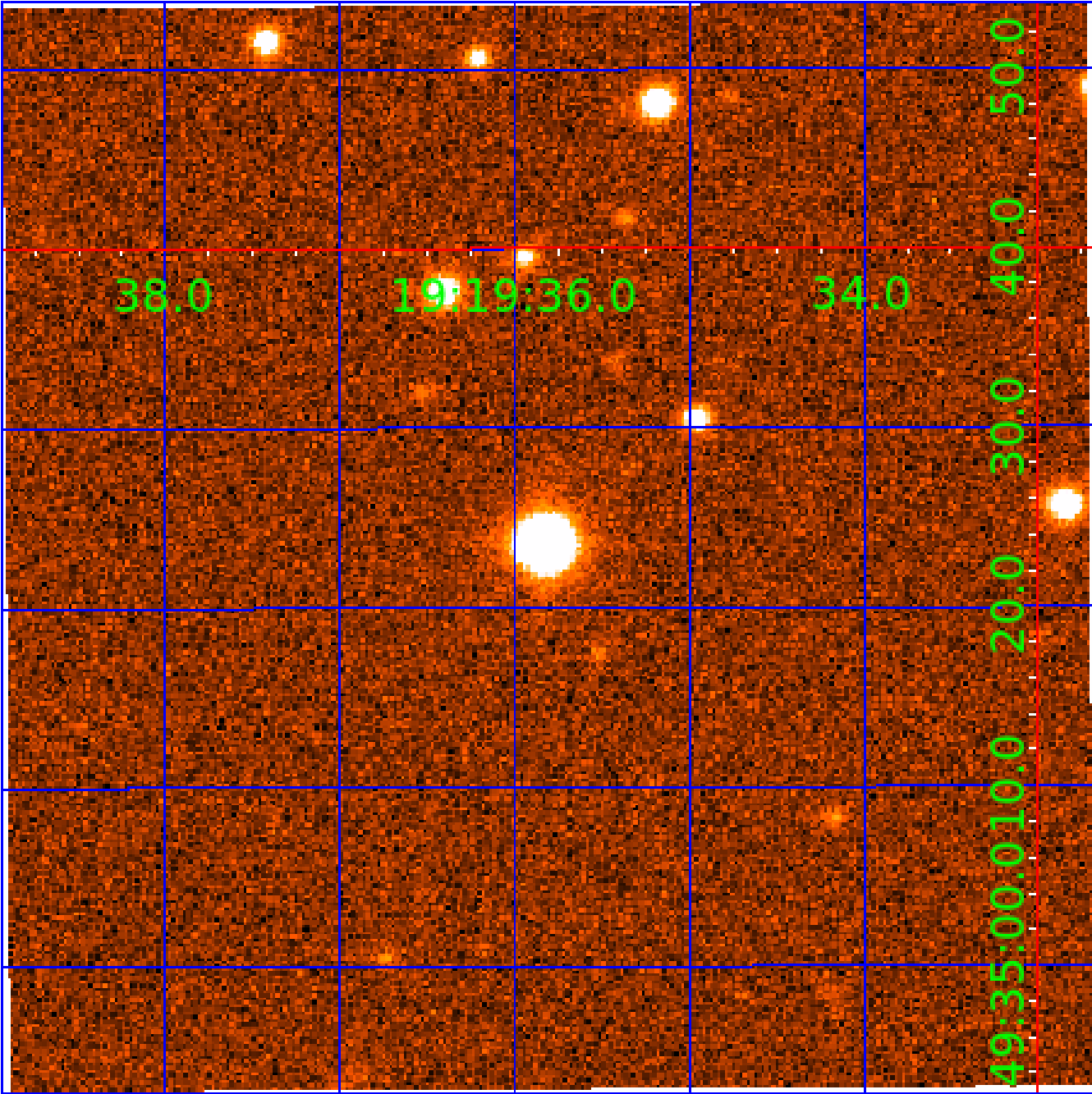


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011555805

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})
011555805-01	OBS	No	404.897784	273.433825	2197.4	4.370	15.9	8.1	0.53	3954	2.45	0.08
011555805-02	OBS	No	199.607286	169.406964	2366.4	2.474	15.8	9.0	0.53	3954	2.57	0.20
011555805-03	OBS	No	370.067697	438.075148	1628.2	2.053	14.4	5.5	0.53	3954	2.16	0.09
011555805-04	OBS	No	99.567575	199.174454	1606.5	5.416	12.2	8.7	0.53	3954	2.19	0.51
011555805-05	OBS	No	263.790251	222.321857	2080.7	3.114	11.1	7.9	0.53	3954	2.45	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011555805-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011555805-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

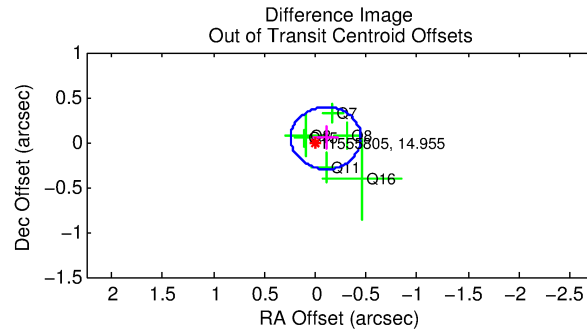
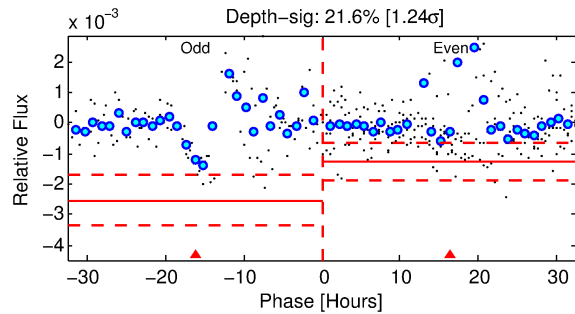
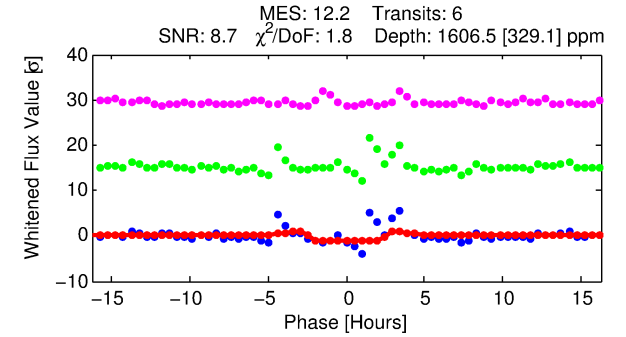
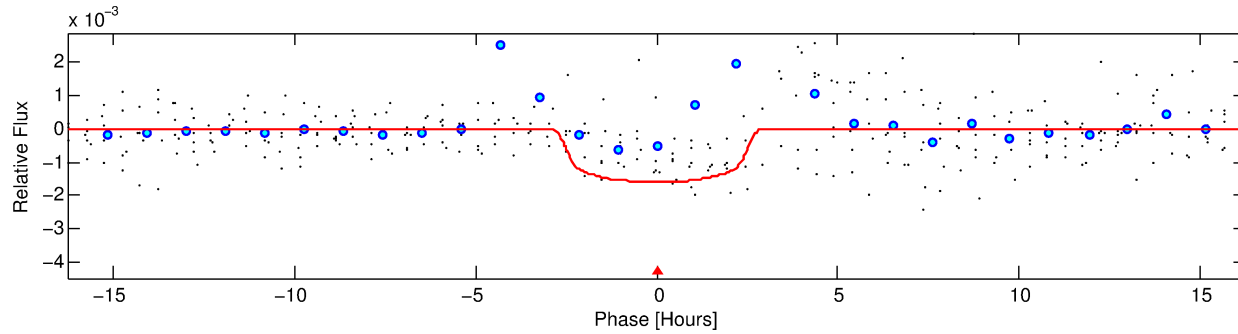
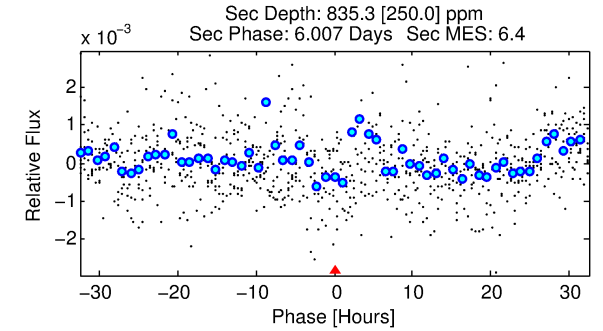
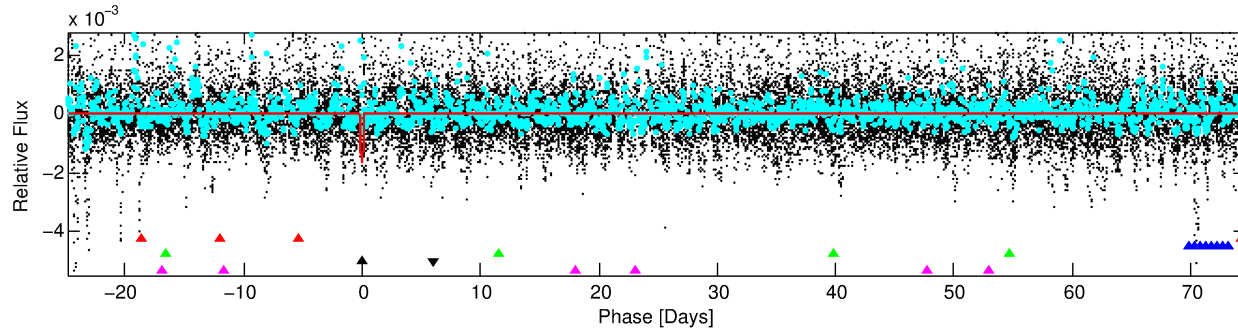
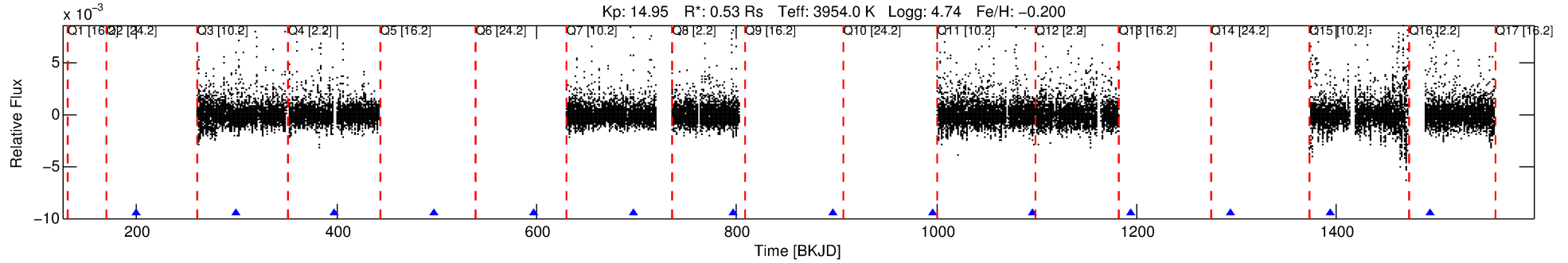
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011555805-04

No Significant Match Found

DV One-Page Summary

KIC: 11555805 Candidate: 4 of 5 Period: 99.568 d



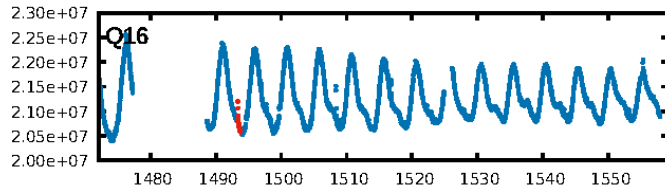
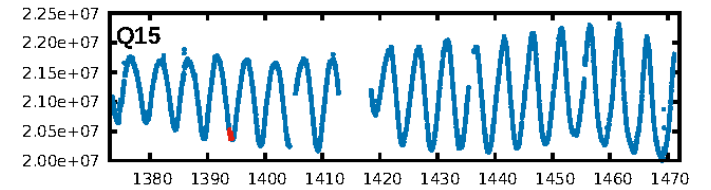
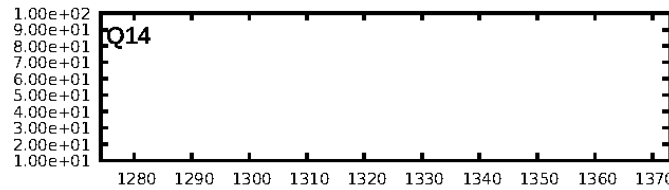
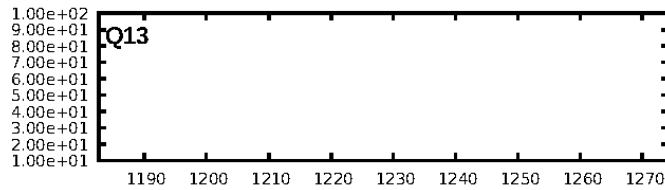
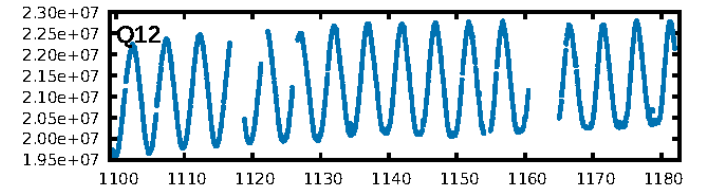
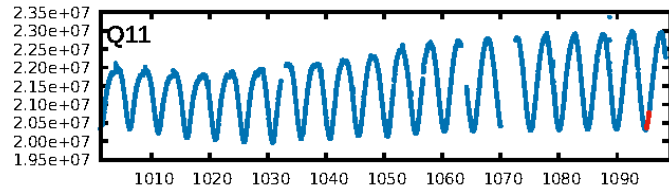
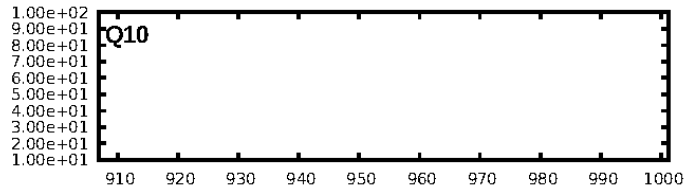
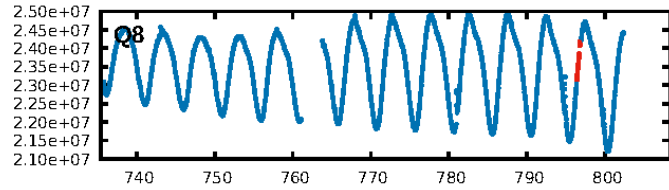
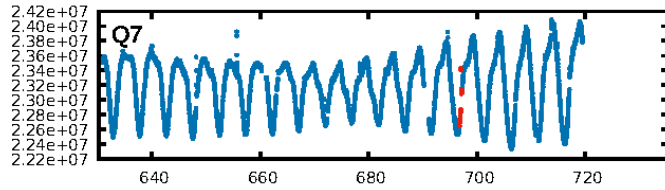
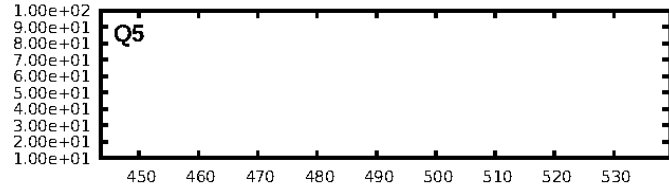
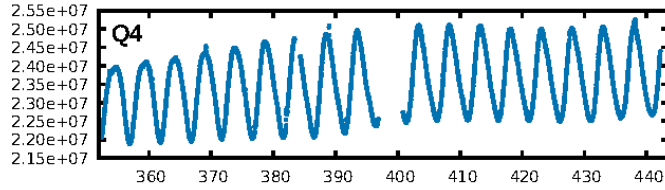
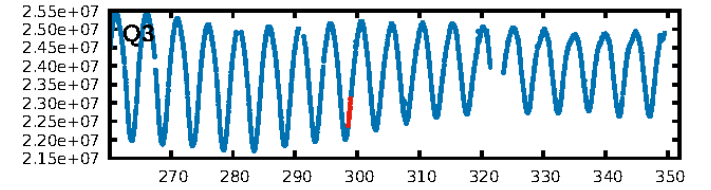
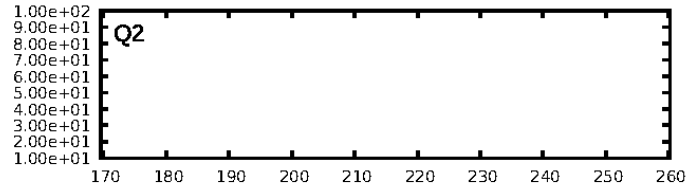
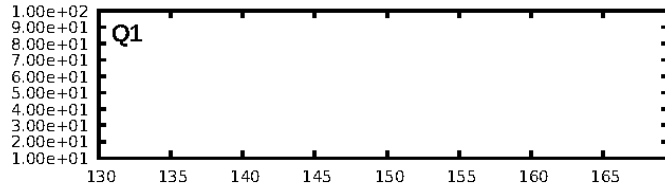
DV Fit Results:

Period = 99.56758 [0.00121] d
Epoch = 199.1745 [0.0100] BKJD
Rp/R* = 0.0381 [0.0439]
a/R* = 120.06 [583.84]
b = 0.59 [5.42]
Seff = 0.51 [0.06]
Teq = 215 [7] K
Rp = 2.19 [2.53] Re
a = 0.3454 [0.0196] AU
Ag = 11423.95 [26558.25] [0.43 σ]
Teffp = 3444 [2002] K [1.61 σ]

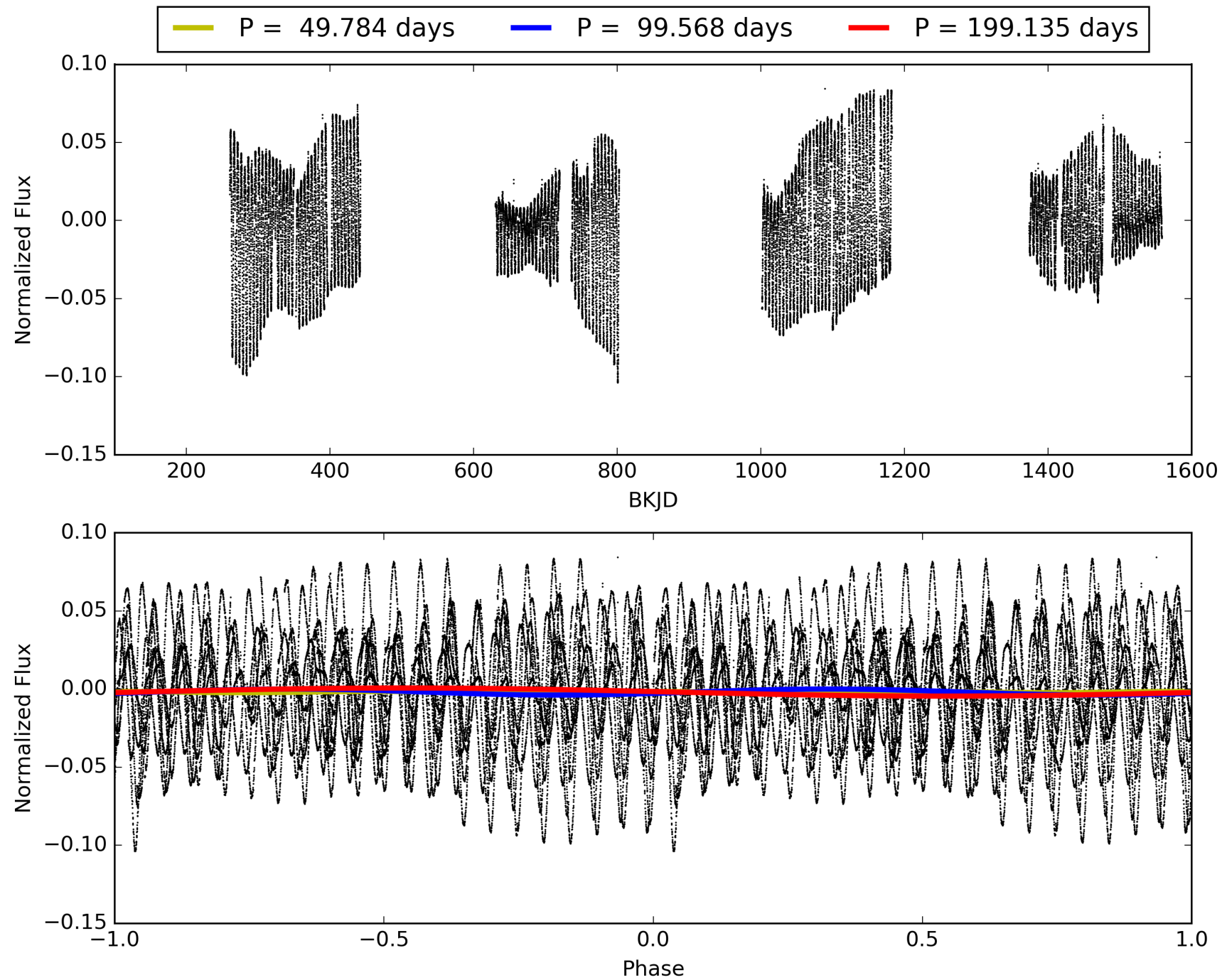
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [403.22 σ]
ModelChiSquare2-sig: 16.4%
ModelChiSquareGof-sig: 12.4%
Bootstrap-pfa: 4.13e-13
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.5239
Centroid-sig: 6.3%
Centroid-so: 1.238 arcsec [1.79 σ]
OotOffset-rm: 0.113 arcsec [0.98 σ]
OotOffset-st: 0/4/2/0 [6]
KicOffset-rm: 0.344 arcsec [2.51 σ]
KicOffset-st: 0/4/2/0 [6]
DiffImageQuality-fgm: 0.67 [4/6]
DiffImageOverlap-fno: 1.00 [6/6]

TCE 011555805-04, PDC Light Curves

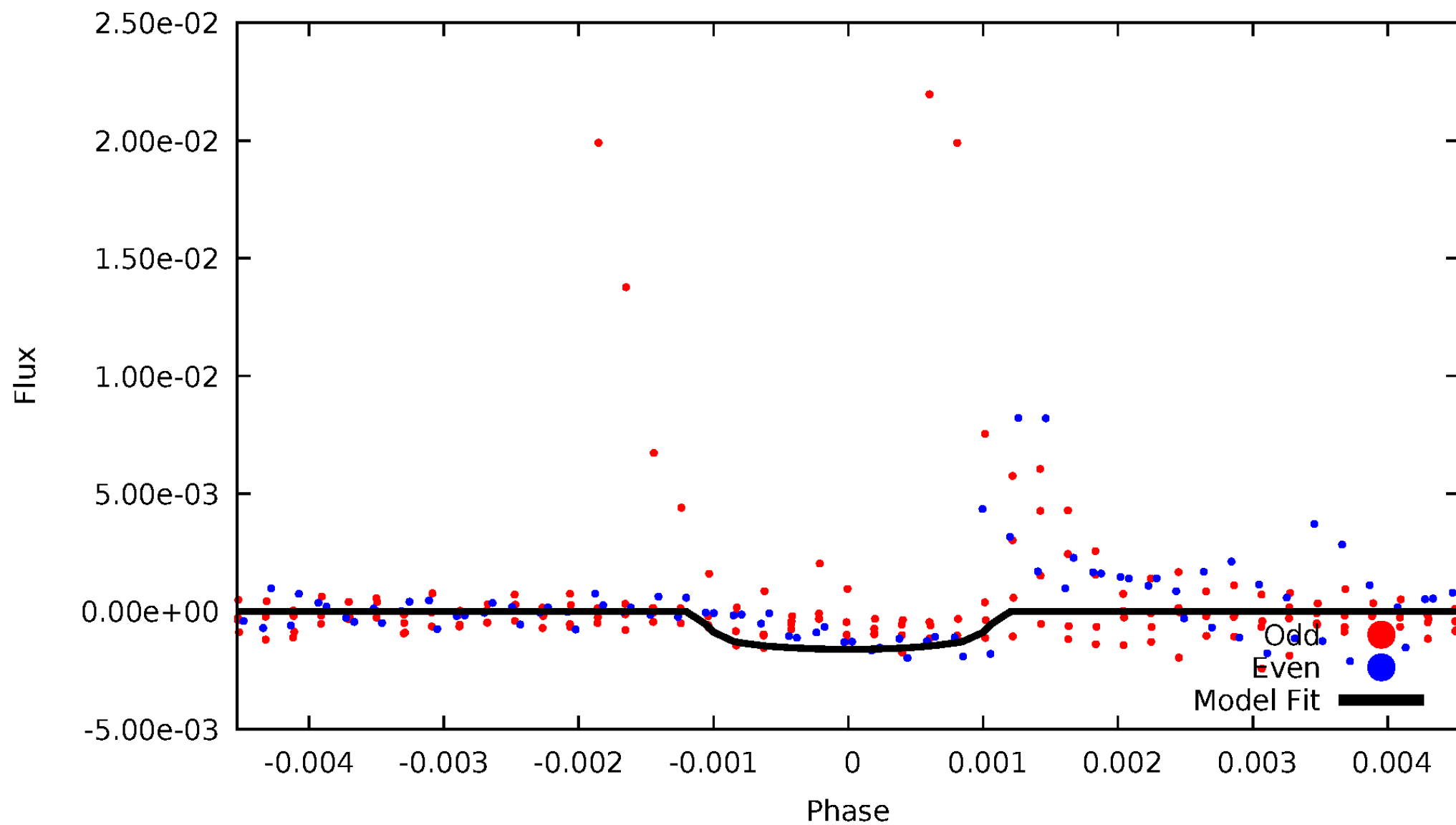


TCE 011555805-04



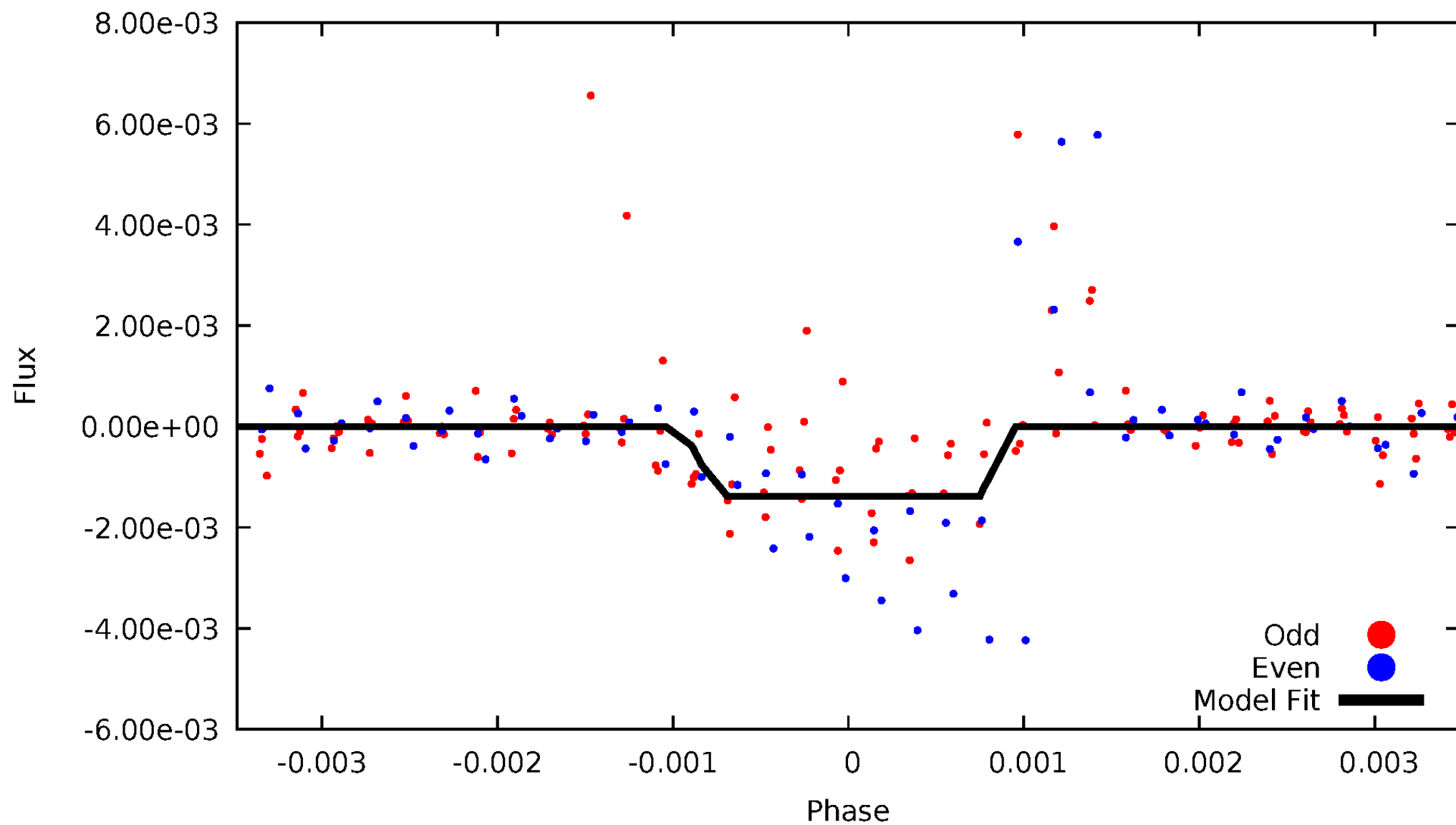
DV Odd/Even

TCE 011555805-04



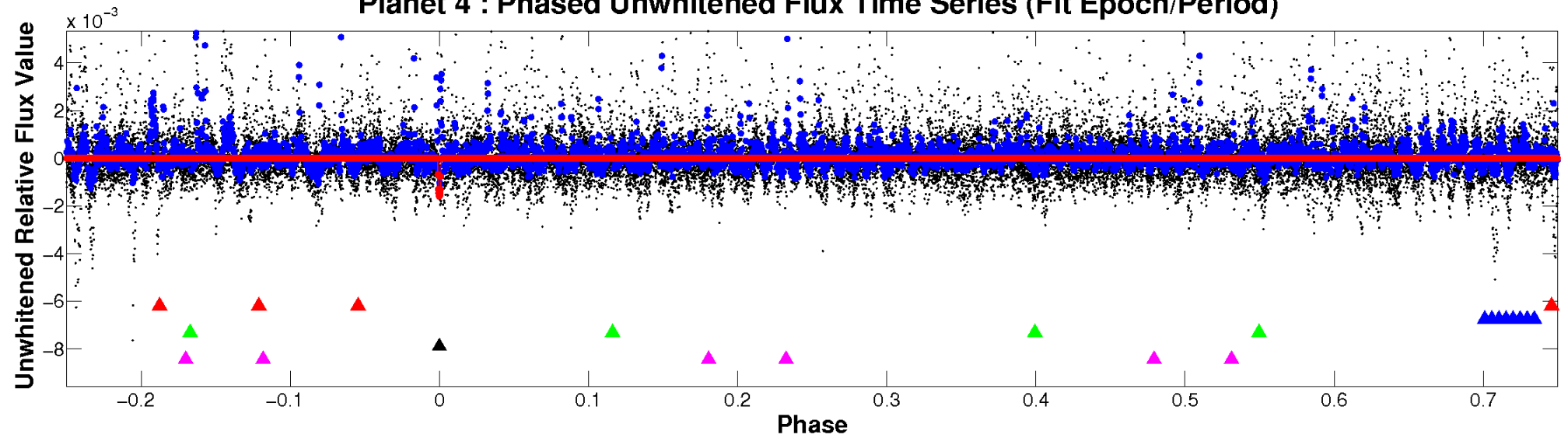
ALT Odd/Even

TCE 011555805-04

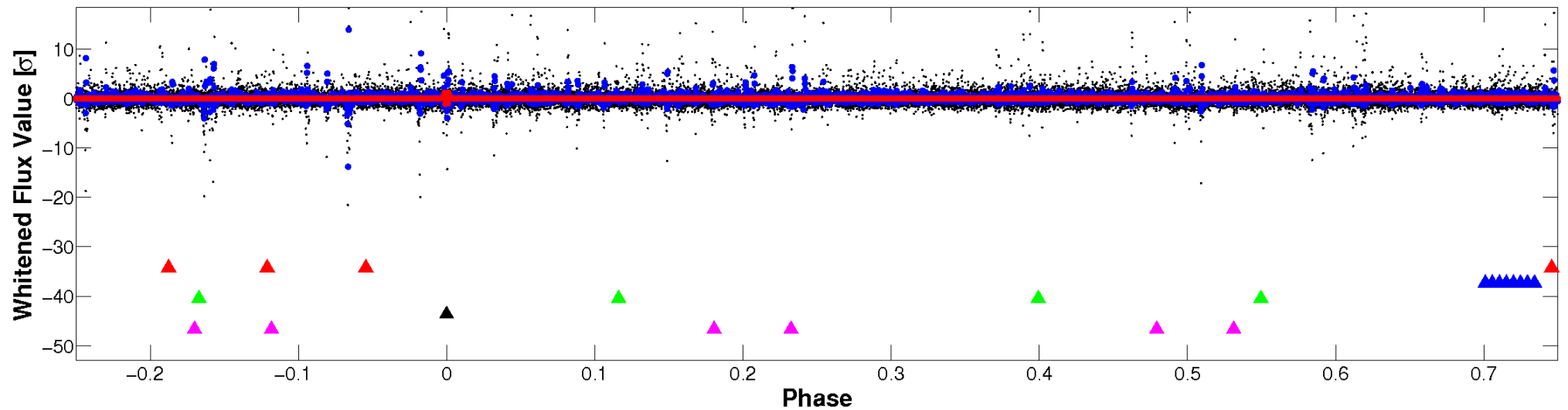


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

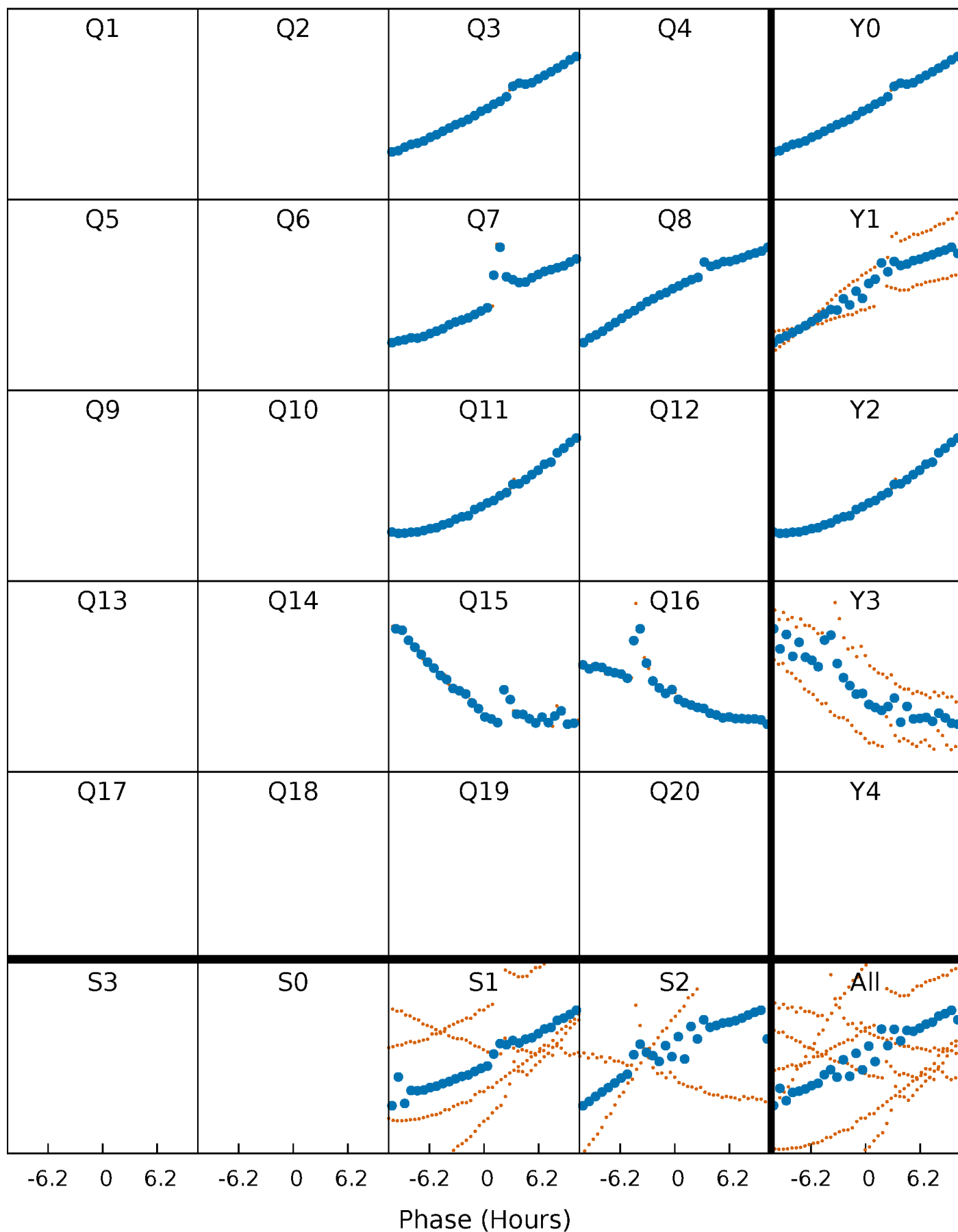


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



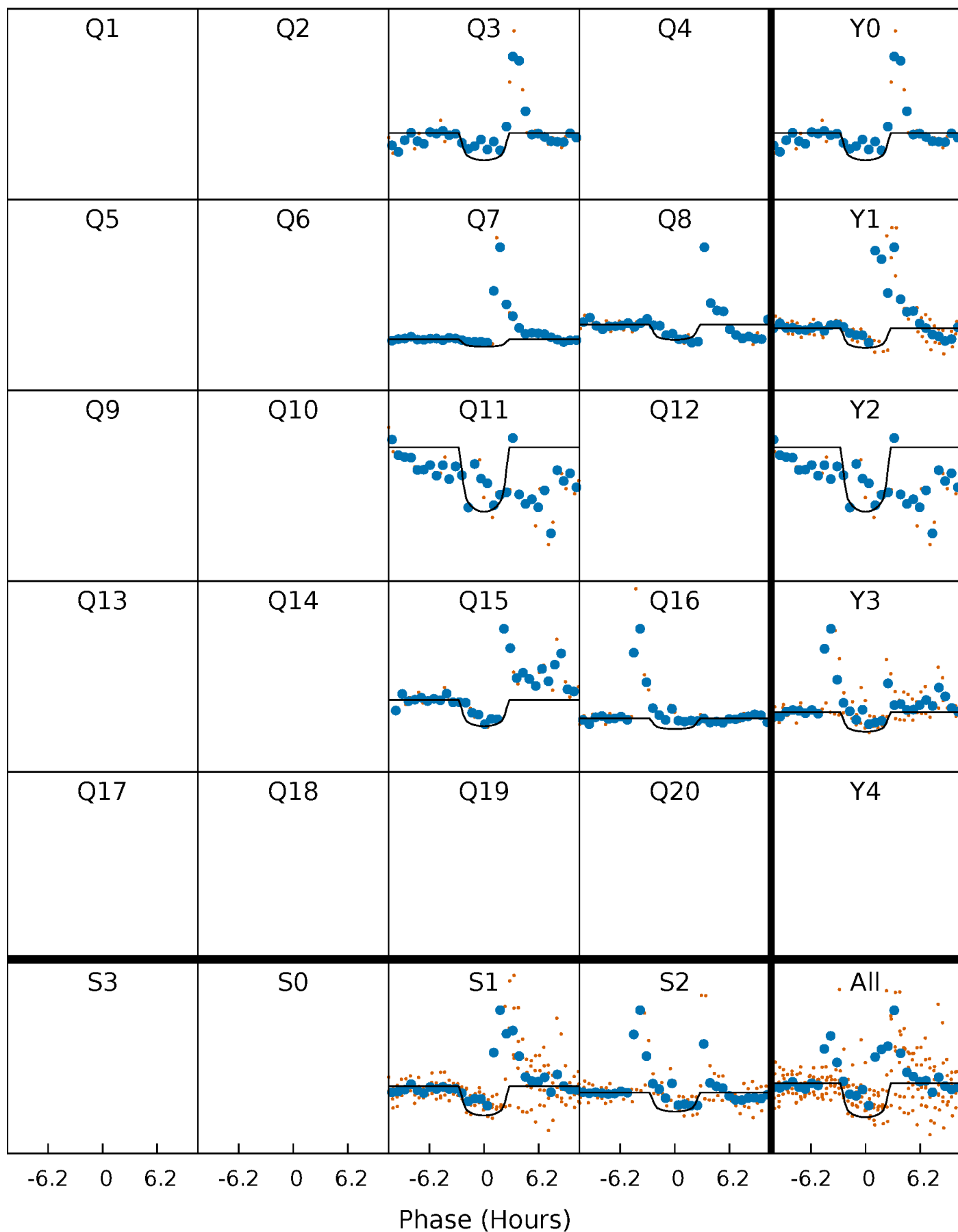
PDC Quarter-Phased Transit Curves

TCE 011555805-04 P= 99.567575 Days $T_0=199.174454$ (BKJD)



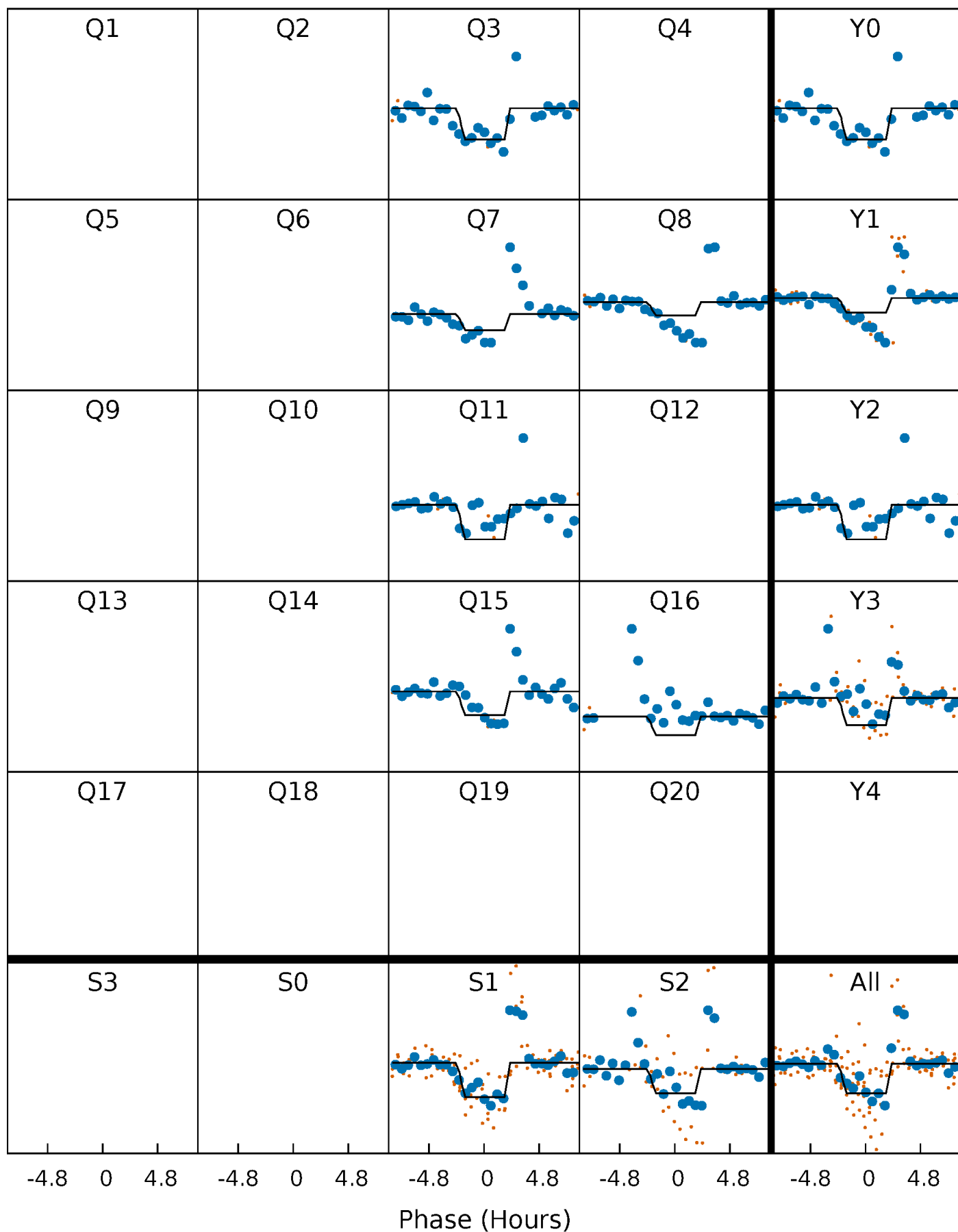
DV Quarter-Phased Transit Curves

TCE 011555805-04 $P = 99.567575$ Days $T_0 = 199.174454$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

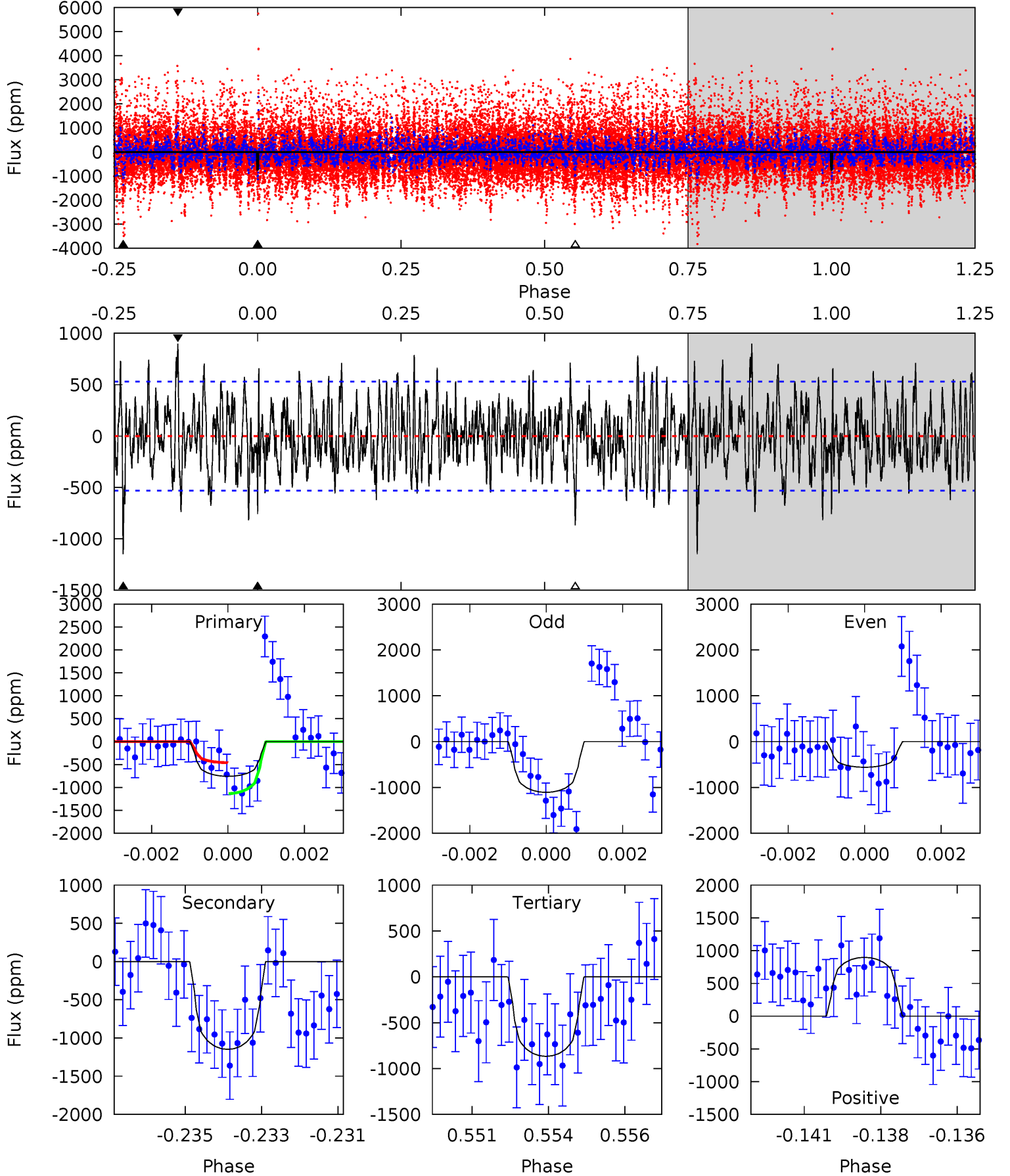
TCE 011555805-04 P= 99.567300 Days $T_0=199.180543$ (BKJD)



DV Model-Shift Uniqueness Test

011555805-04, P = 99.567575 Days, E = 199.174454 Days

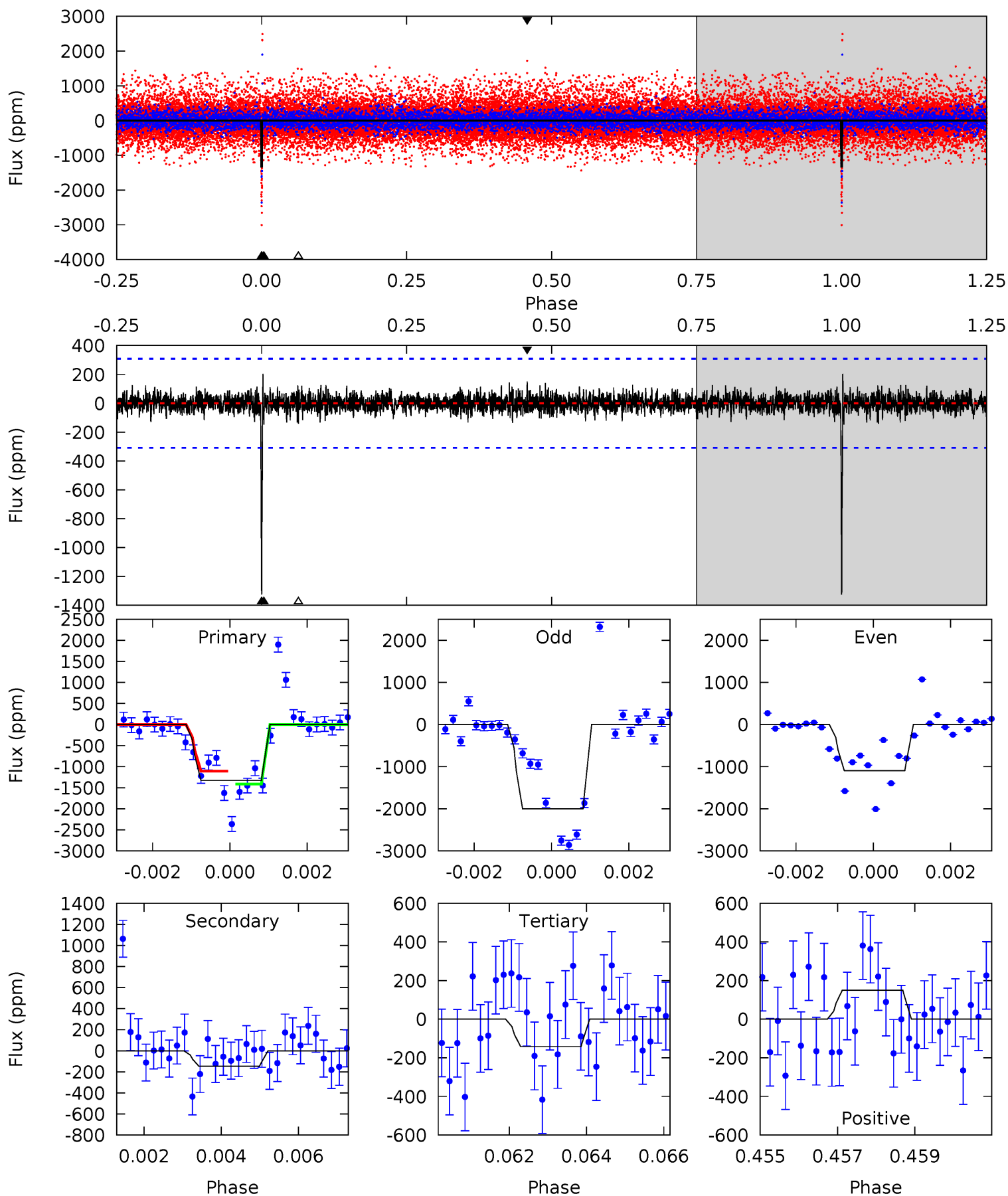
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.56	11.5	8.65	8.95	5.29	3.03	2.66	-1.09	-1.39	2.81	2.51	2.44	-0.19	0.44	3.36



Alt Model-Shift Uniqueness Test

011555805-04, P = 99.567300 Days, E = 199.180543 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	2.54	2.45	2.60	5.34	3.12	0.66	20.5	20.3	0.09	-0.06	8.12	0.99	0.13	0



Stellar Parameters For KIC 011555805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3954^{+78}_{-94}	$4.738^{+0.032}_{-0.039}$	$-0.200^{+0.200}_{-0.200}$	$0.527^{+0.038}_{-0.038}$	$0.555^{+0.035}_{-0.047}$	$5.324^{+0.857}_{-0.805}$
	+2%/-2%	+1%/-1%	+100%/-100%	+7%/-7%	+6%/-8%	+16%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011555805-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1149 ± 100	$2.62^{+2.36}_{-1.70}$	301^{+8}_{-8}	3562^{+1654}_{-616}	10769^{+74636}_{-7796}
Alt.	-147 ± 58	$2.78^{+2.26}_{-1.75}$	302^{+7}_{-8}	2598^{+845}_{-355}	1162^{+7176}_{-826}

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

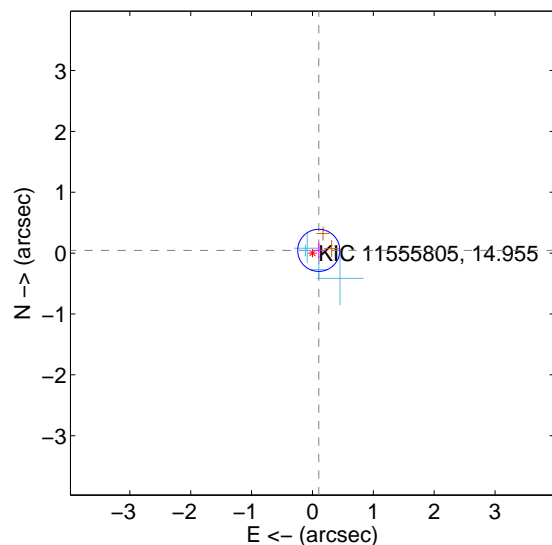
Supplemental centroid analysis for 011555805-04. Kepler magnitude: 14.96. Transit SNR 8.66

There are 4 quarters with good PRF difference image offsets

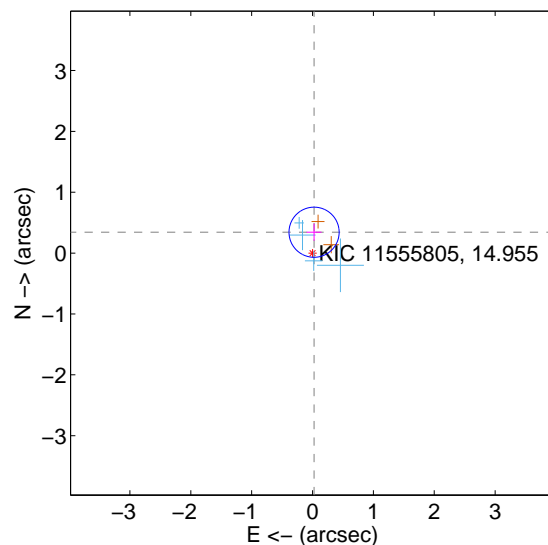
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.113 ± 0.115	0.98	-0.104 ± 0.113	0.045 ± 0.126
PRF-fit source offset from KIC position	0.344 ± 0.137	2.51	-0.025 ± 0.123	0.343 ± 0.142
photometric centroid source offset	1.24 ± 0.69	1.79	-0.85 ± 0.68	0.90 ± 0.70

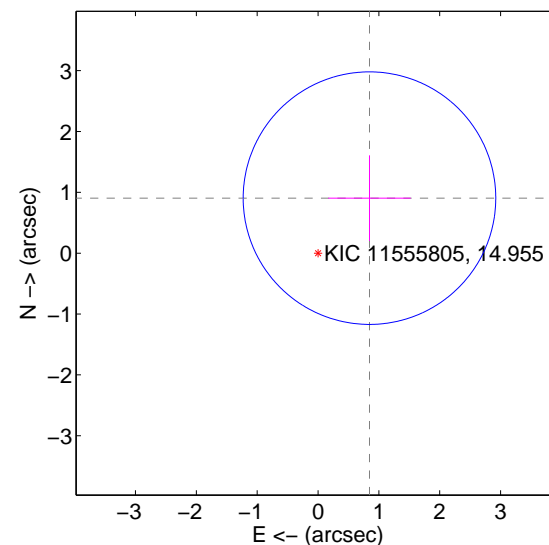
offset from difference PRF-fit to OOT PRF-fit



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.

Q1 no difference image



Q1 no OOT image



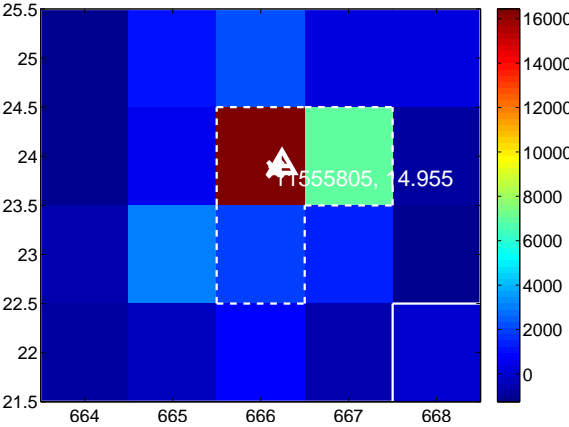
Q2 no difference image



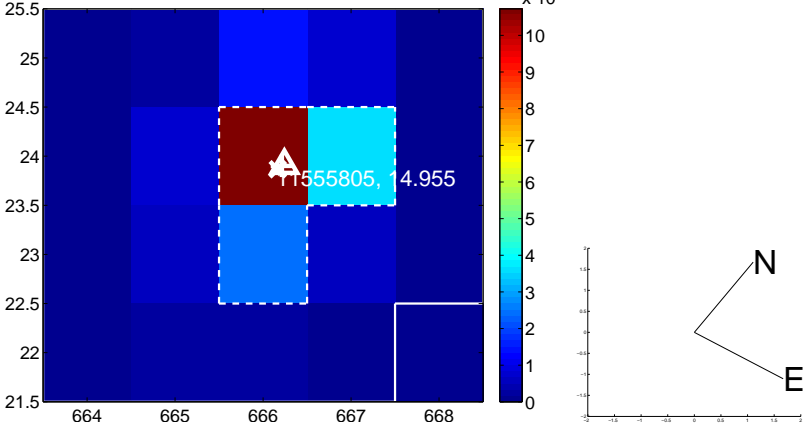
Q2 no OOT image



Q3 difference image



Q3 OOT image



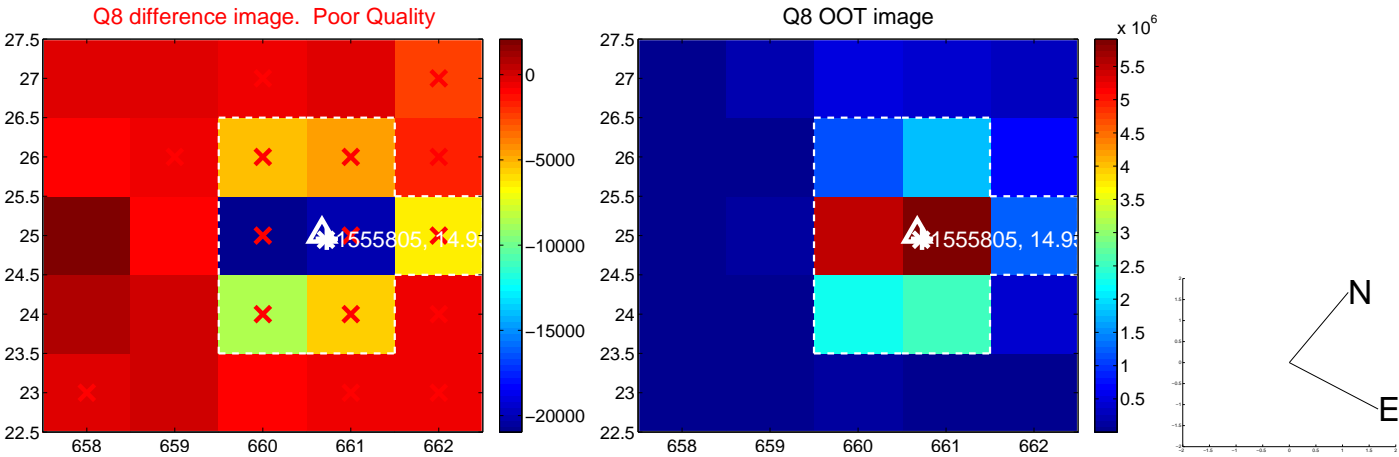
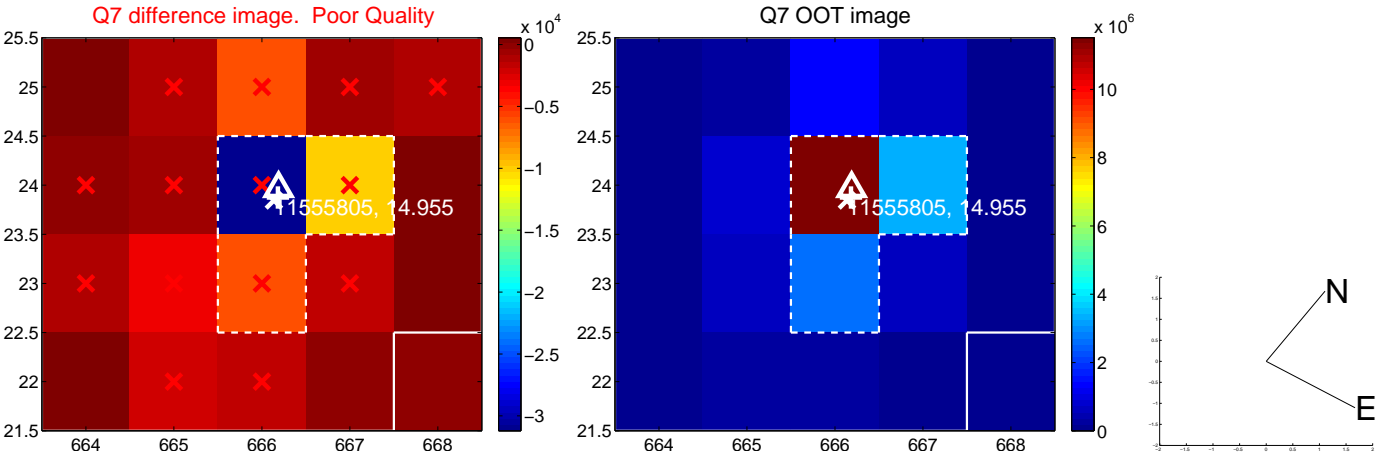
Q4 no difference image



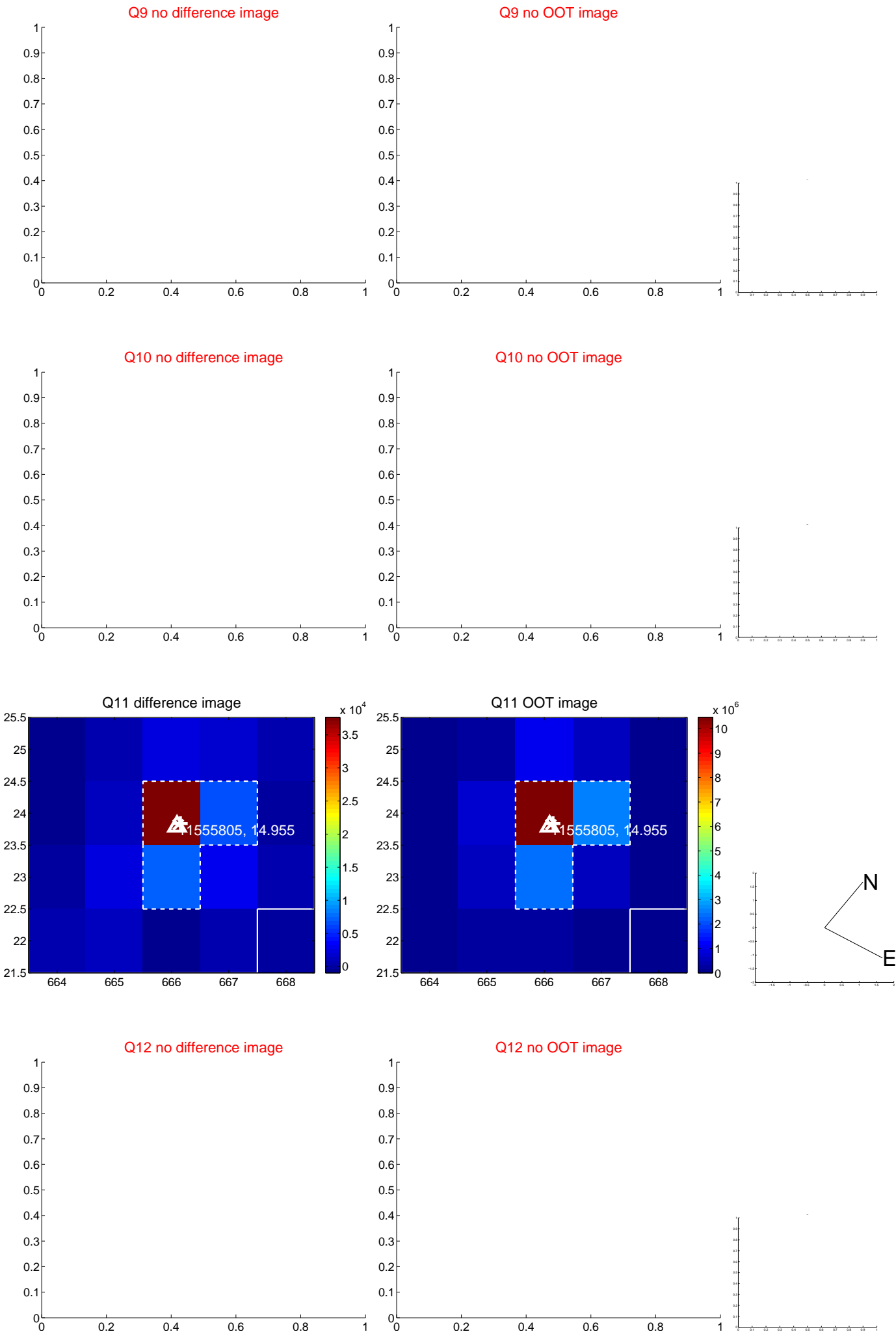
Q4 no OOT image



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.

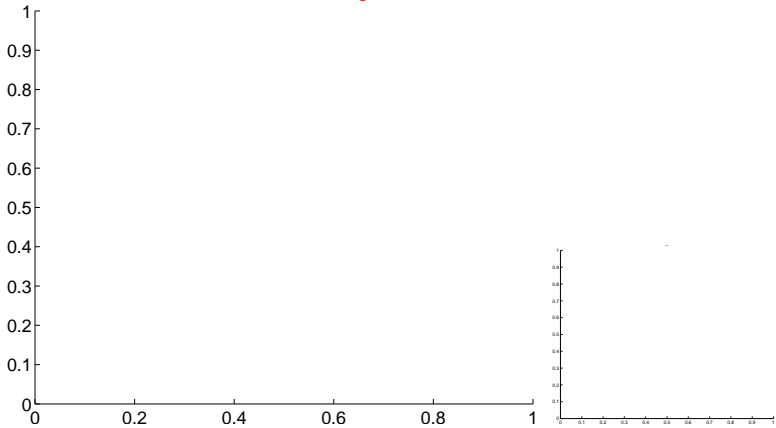


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q13 no difference image



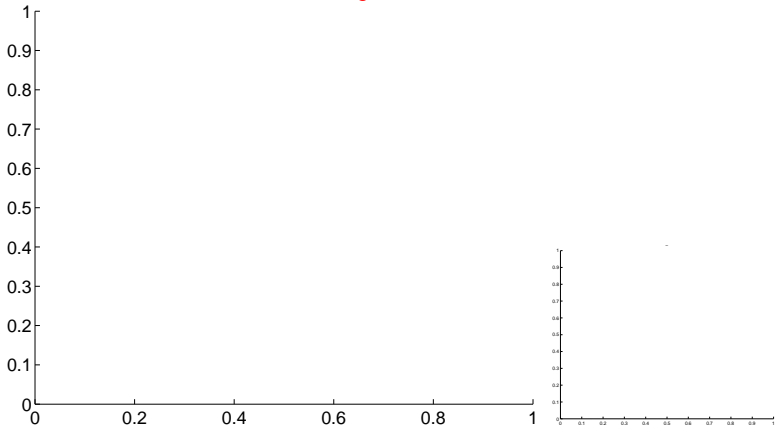
Q13 no OOT image



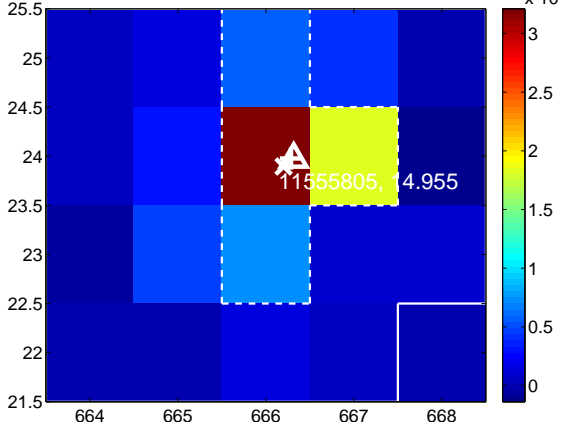
Q14 no difference image



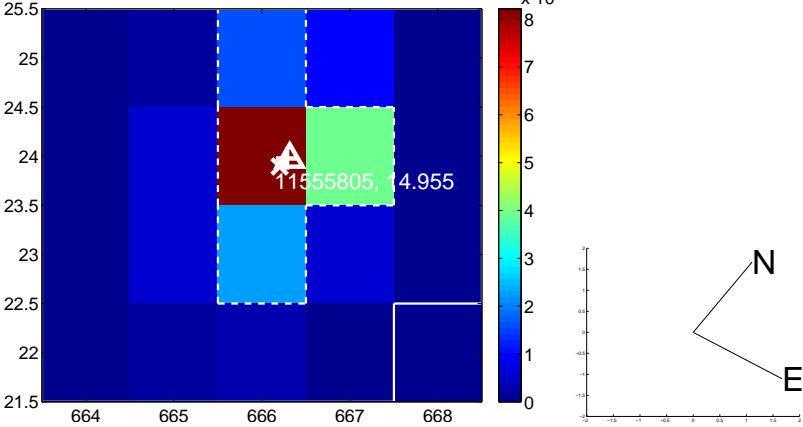
Q14 no OOT image



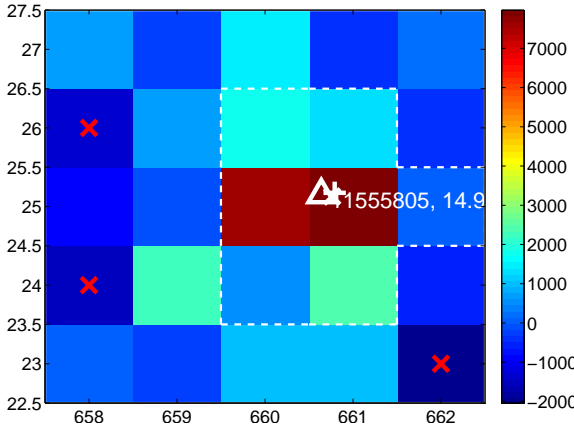
Q15 difference image



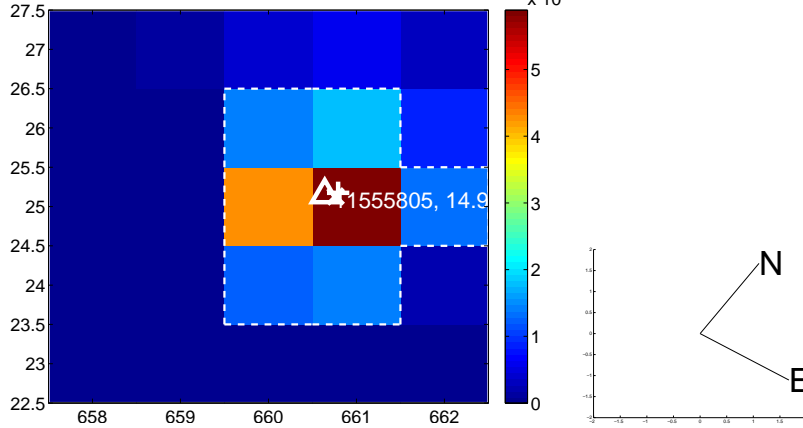
Q15 OOT image



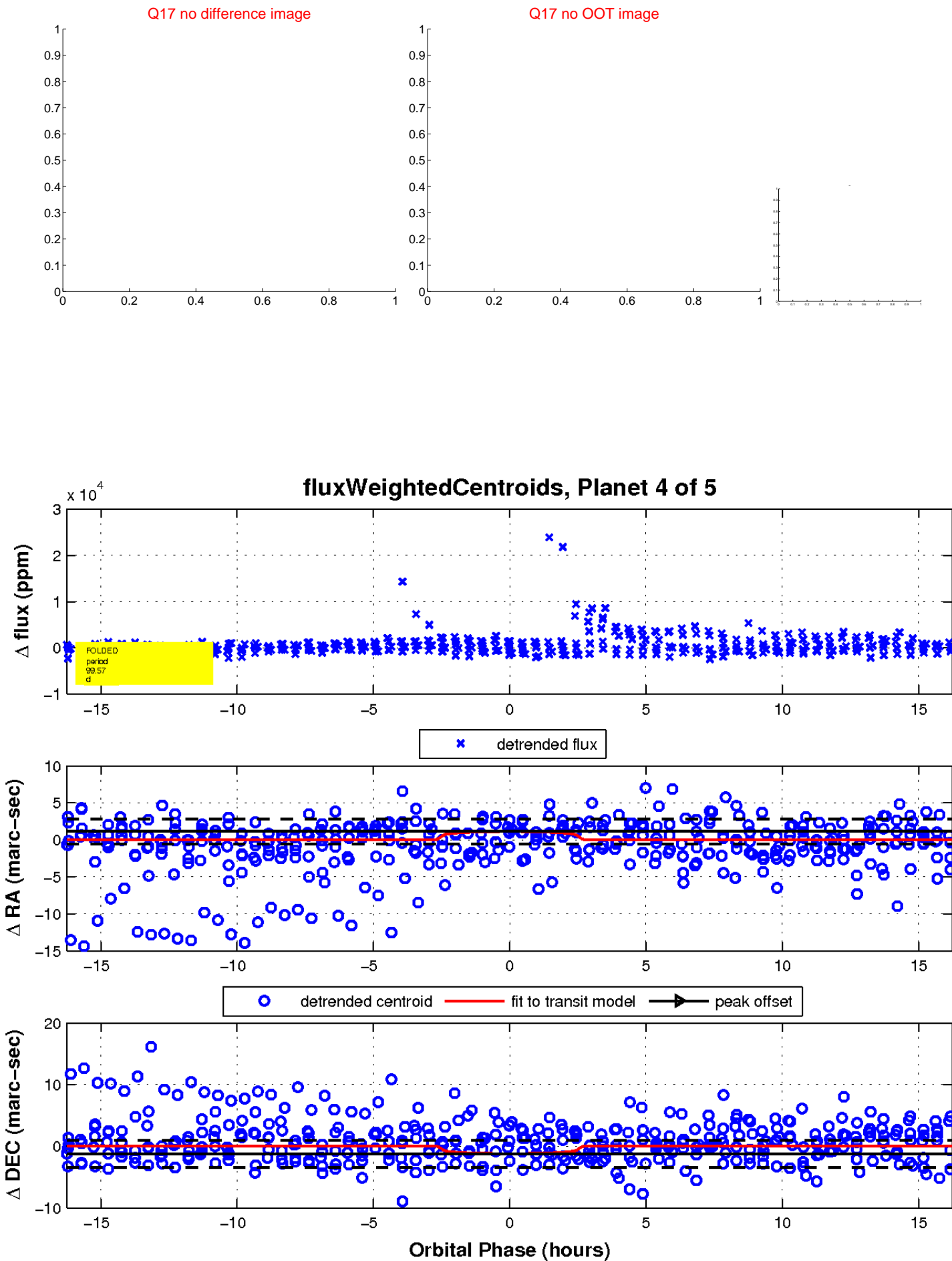
Q16 difference image



Q16 OOT image

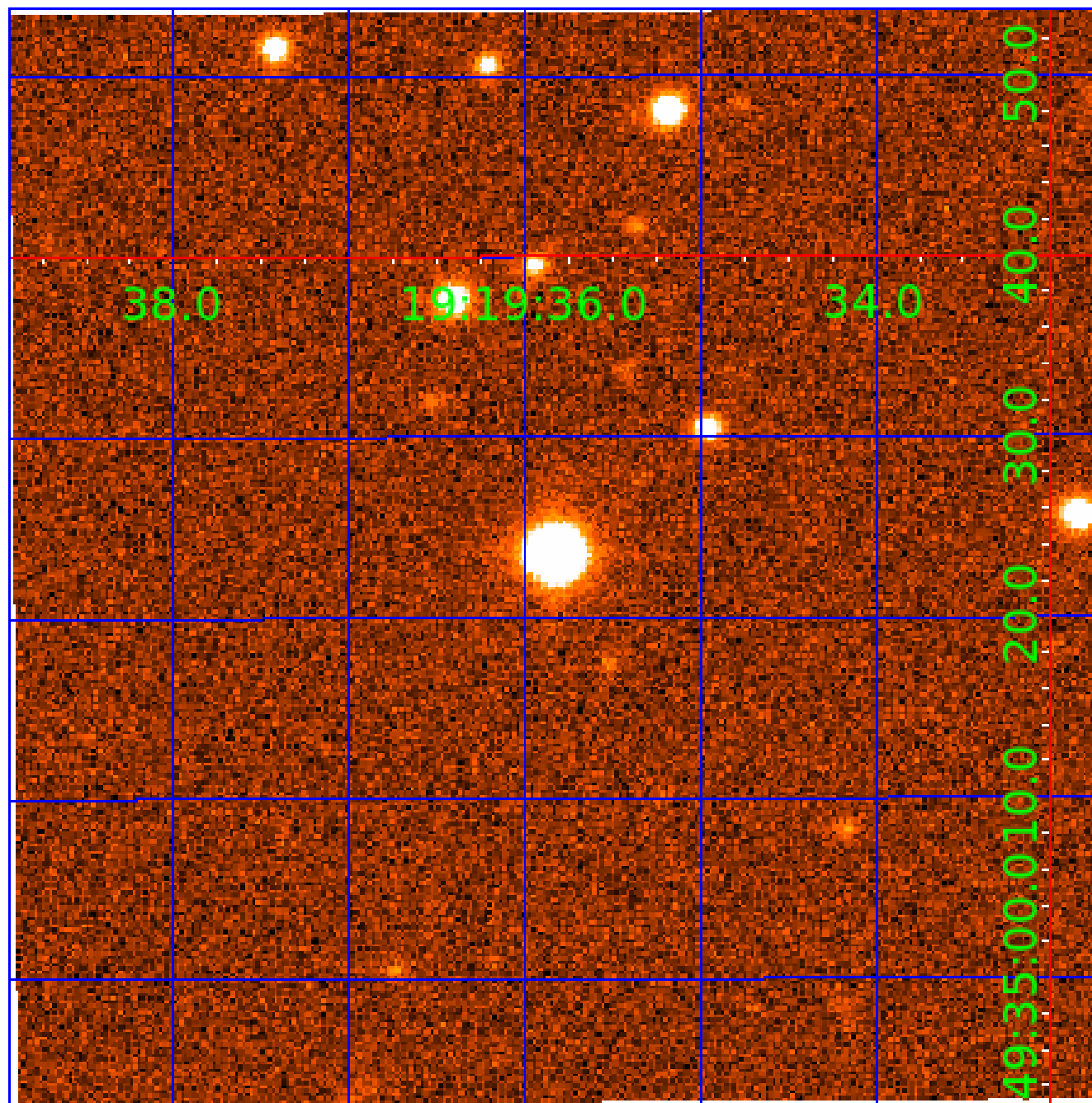


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011555805

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})
011555805-01	OBS	No	404.897784	273.433825	2197.4	4.370	15.9	8.1	0.53	3954	2.45	0.08
011555805-02	OBS	No	199.607286	169.406964	2366.4	2.474	15.8	9.0	0.53	3954	2.57	0.20
011555805-03	OBS	No	370.067697	438.075148	1628.2	2.053	14.4	5.5	0.53	3954	2.16	0.09
011555805-04	OBS	No	99.567575	199.174454	1606.5	5.416	12.2	8.7	0.53	3954	2.19	0.51
011555805-05	OBS	No	263.790251	222.321857	2080.7	3.114	11.1	7.9	0.53	3954	2.45	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011555805-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
011555805-04	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011555805-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

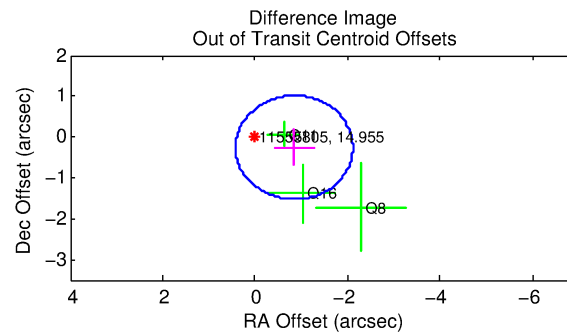
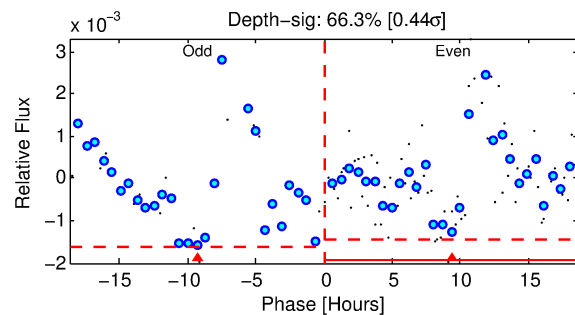
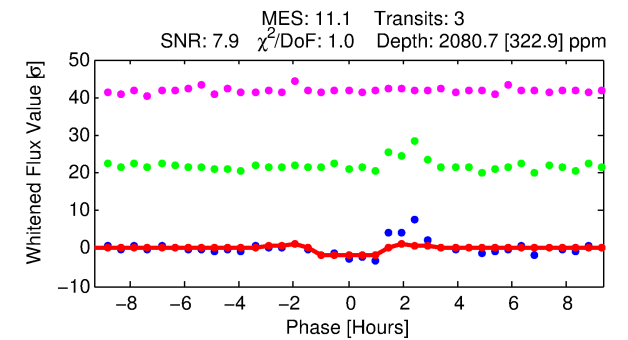
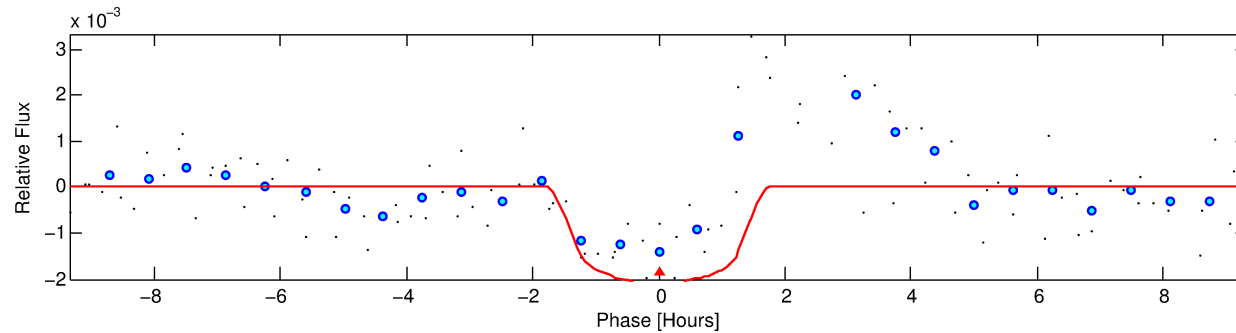
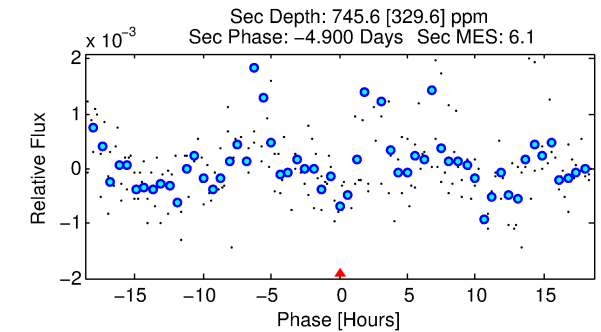
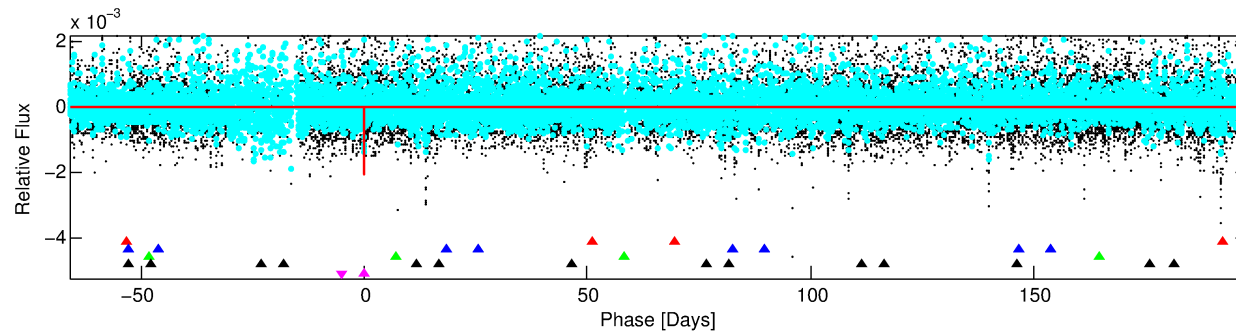
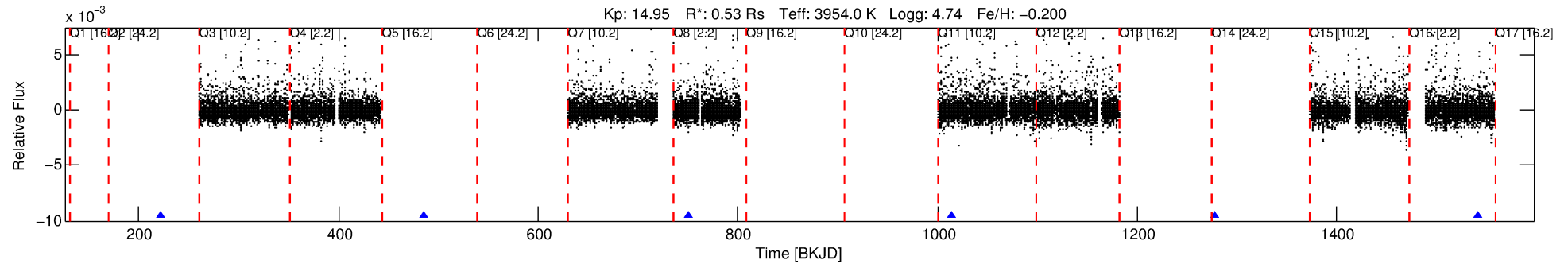
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011555805-05

No Significant Match Found

DV One-Page Summary

KIC: 11555805 Candidate: 5 of 5 Period: 263.790 d



DV Fit Results:

Period = 263.79025 [0.00345] d
Epoch = 222.3219 [0.0112] BKJD
Rp/R* = 0.0426 [0.0452]
a/R* = 594.81 [2620.14]
b = 0.49 [6.84]
Seff = 0.14 [0.02]
Teq = 156 [5] K
Rp = 2.45 [2.61] Re
a = 0.6613 [0.0374] AU
Ag = 29848.15 [64713.49] [0.46 σ]
Teffp = 3165 [1716] K [1.75 σ]

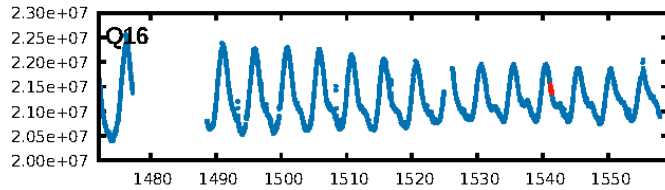
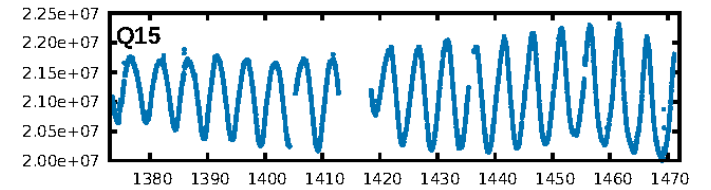
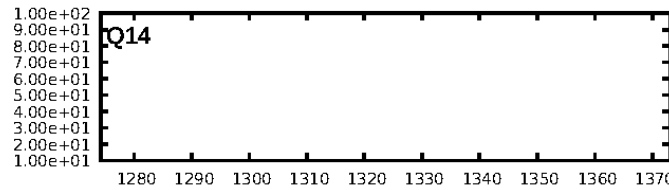
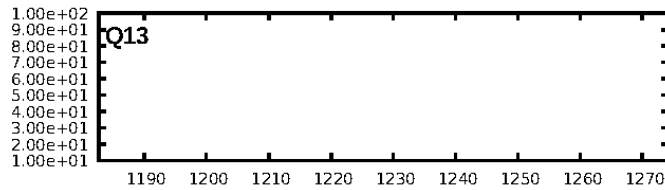
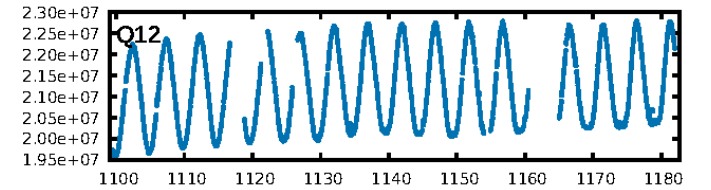
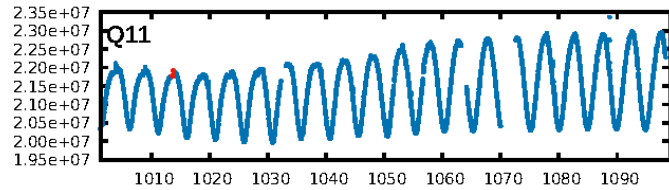
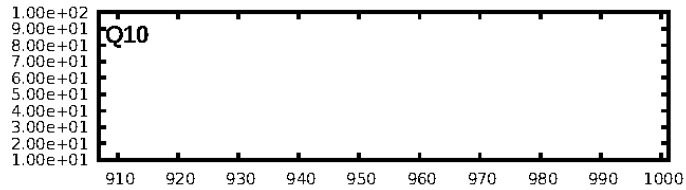
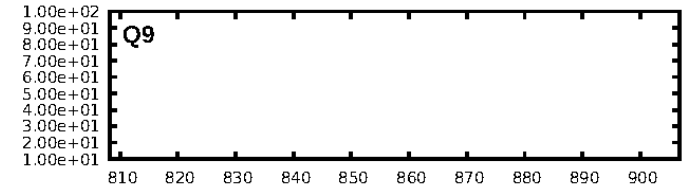
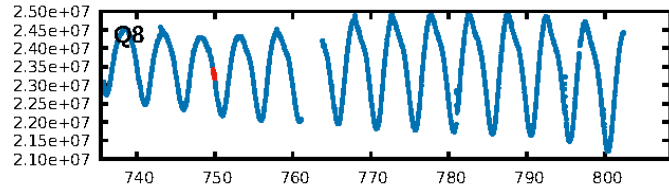
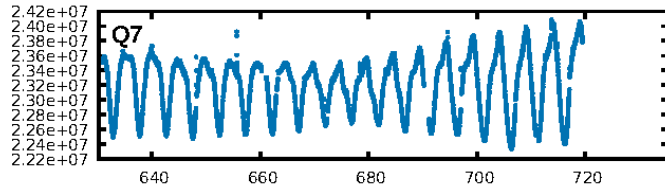
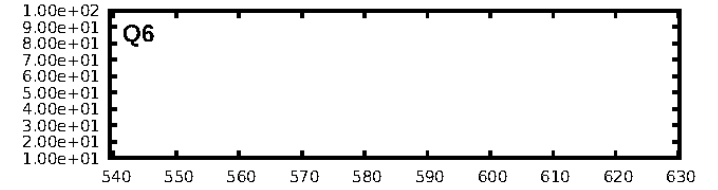
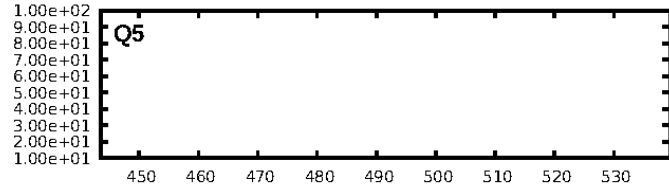
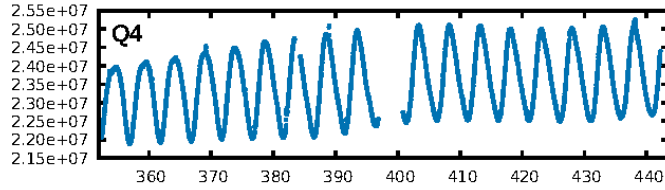
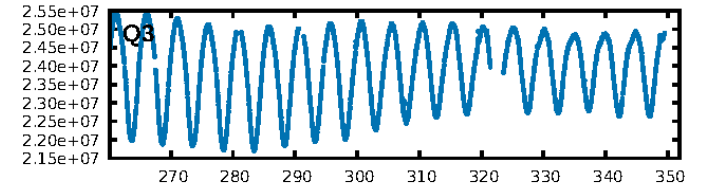
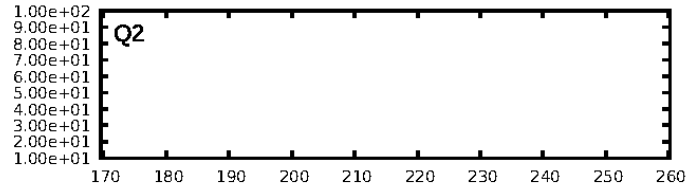
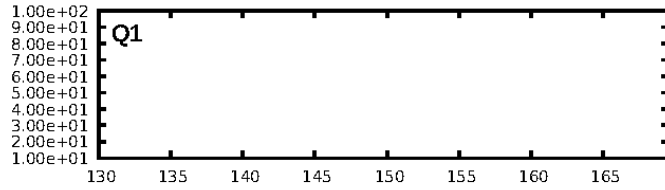
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [387.30 σ]
LongPeriod-sig: 100.0% [683.81 σ]
ModelChiSquare2-sig: 59.7%
ModelChiSquareGof-sig: 98.4%
Bootstrap-pfa: 1.44e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6594
Centroid-sig: 60.7%
Centroid-so: 0.795 arcsec [0.79 σ]
OotOffset-rm: 0.879 arcsec [2.08 σ]
OotOffset-st: 0/1/2/0 [3]
KicOffset-rm: 0.769 arcsec [1.82 σ]
KicOffset-st: 0/1/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:36:29 Z

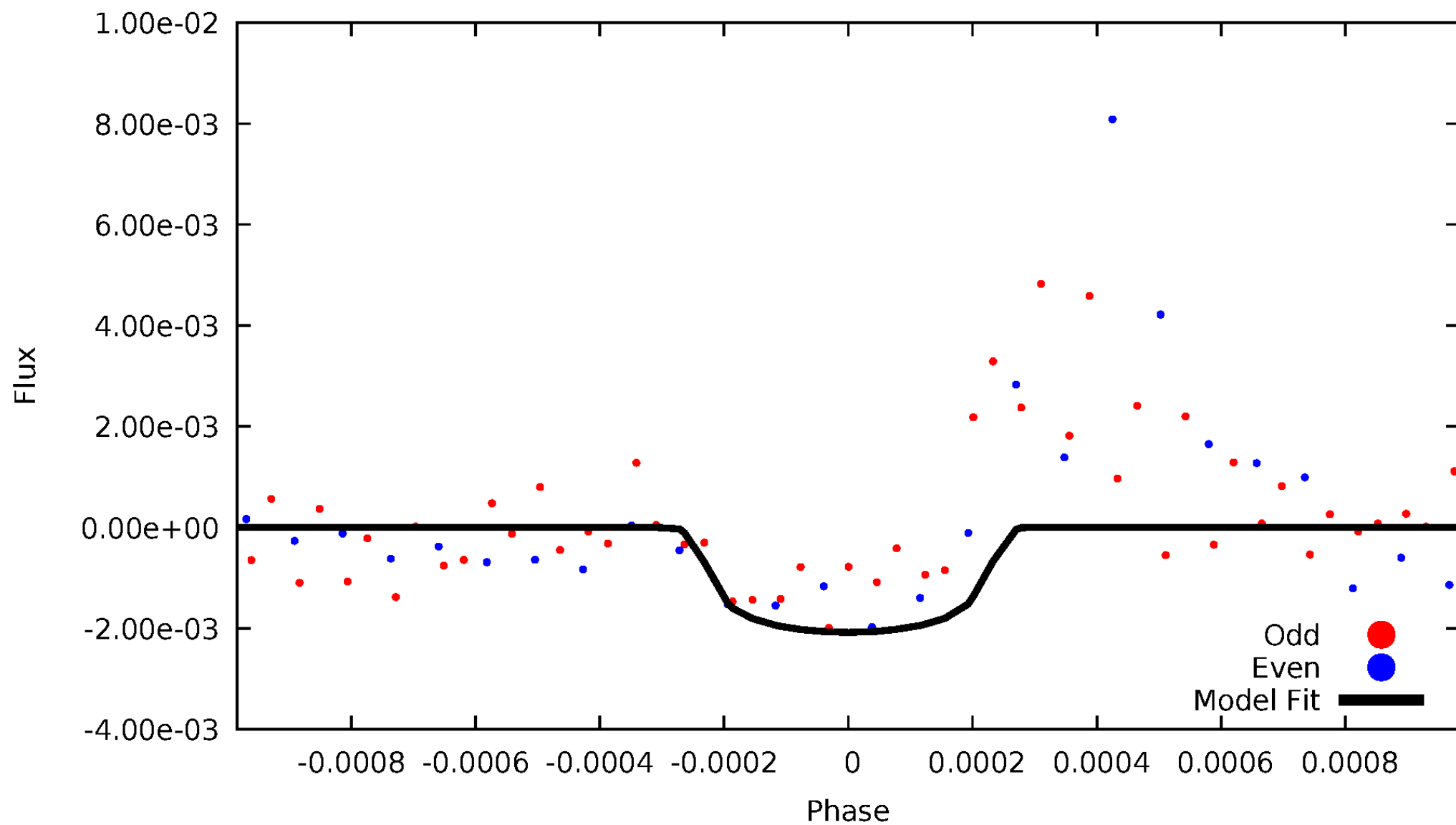
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011555805-05, PDC Light Curves



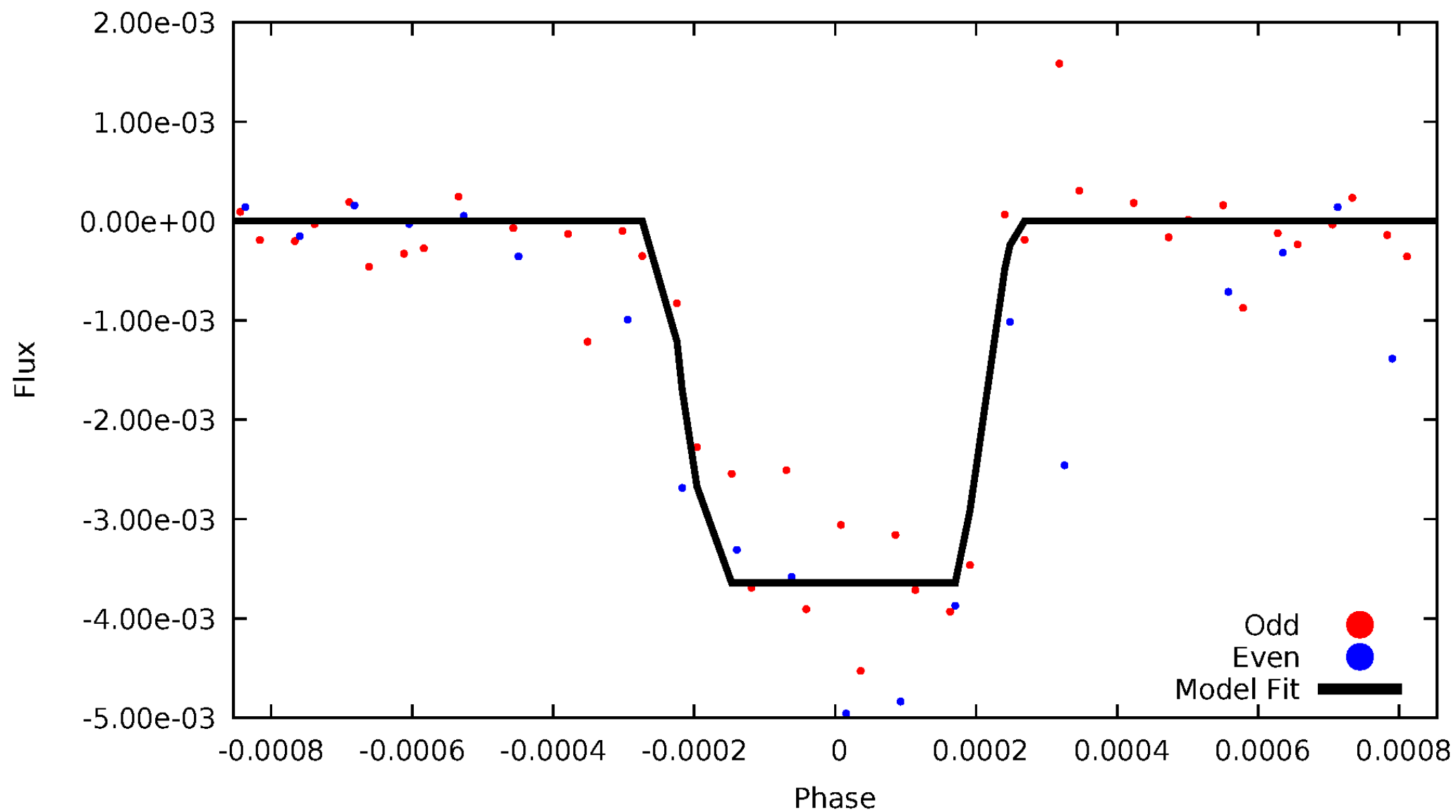
DV Odd/Even

TCE 011555805-05



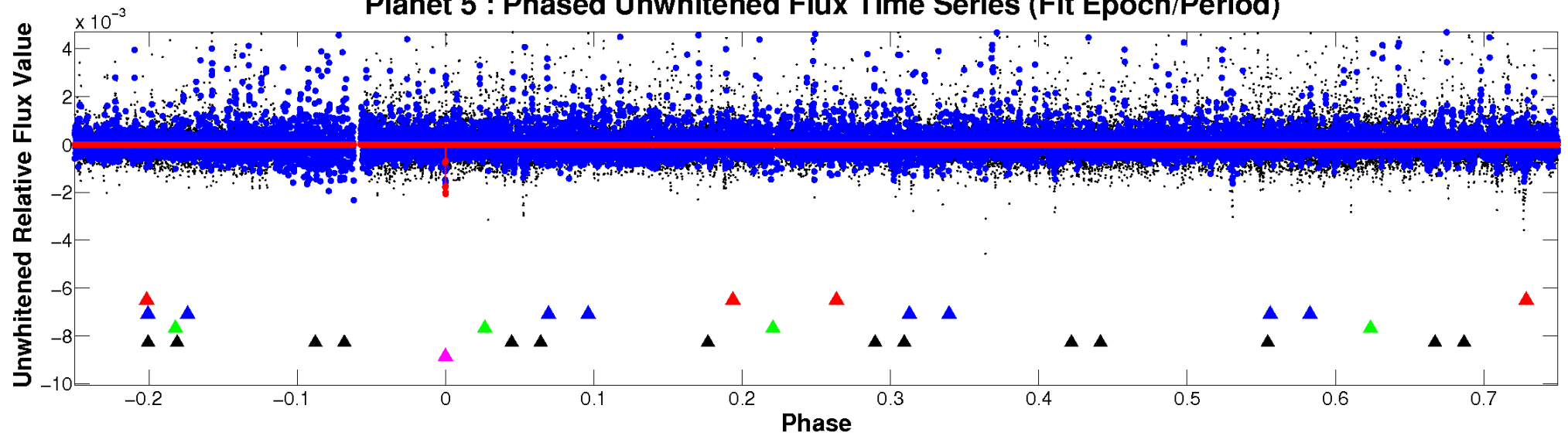
ALT Odd/Even

TCE 011555805-05

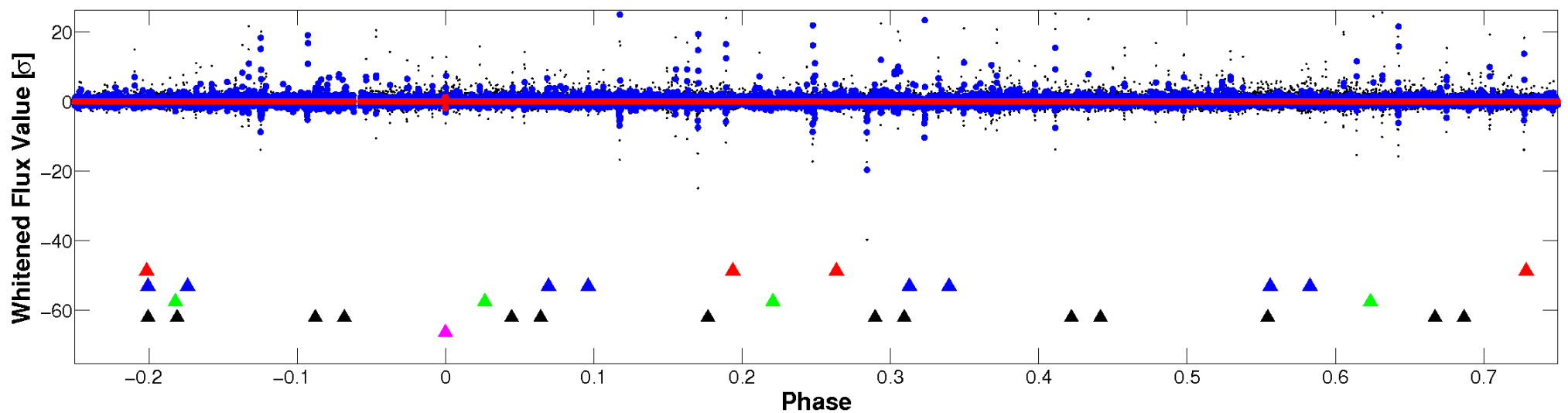


Non-Whitened Vs. Whitened Light Curve

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

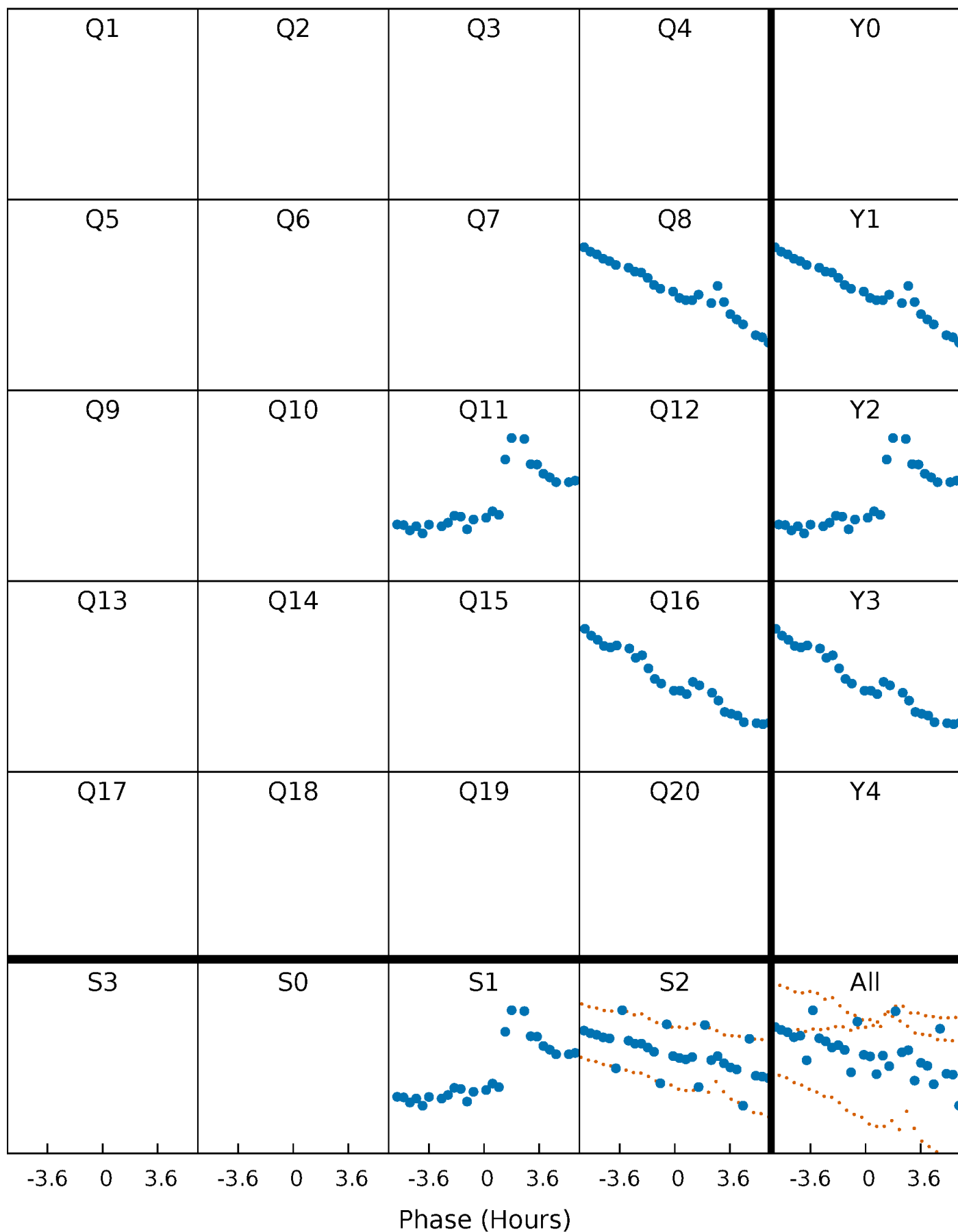


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



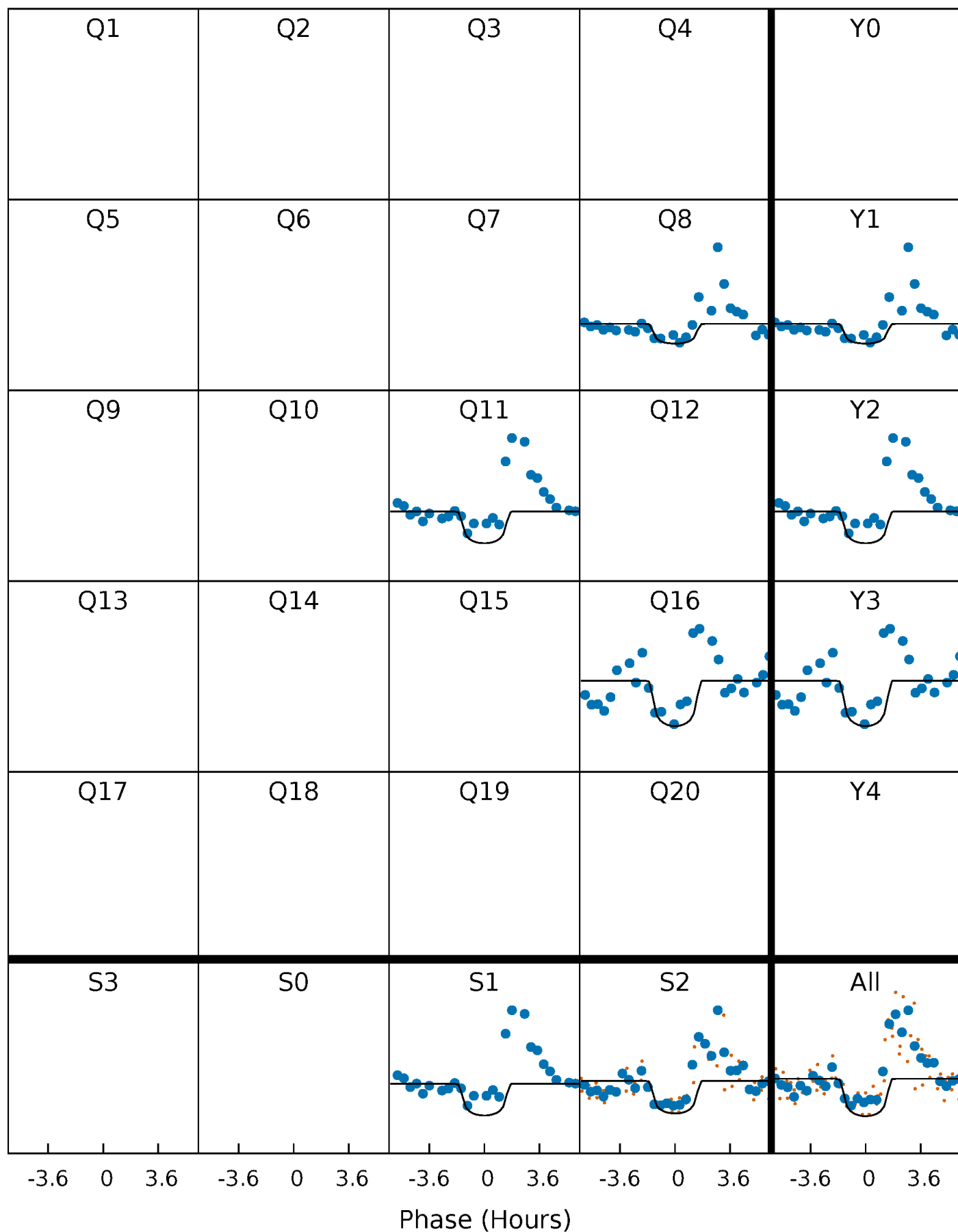
PDC Quarter-Phased Transit Curves

TCE 011555805-05 $P=263.790251$ Days $T_0=222.321857$ (BKJD)



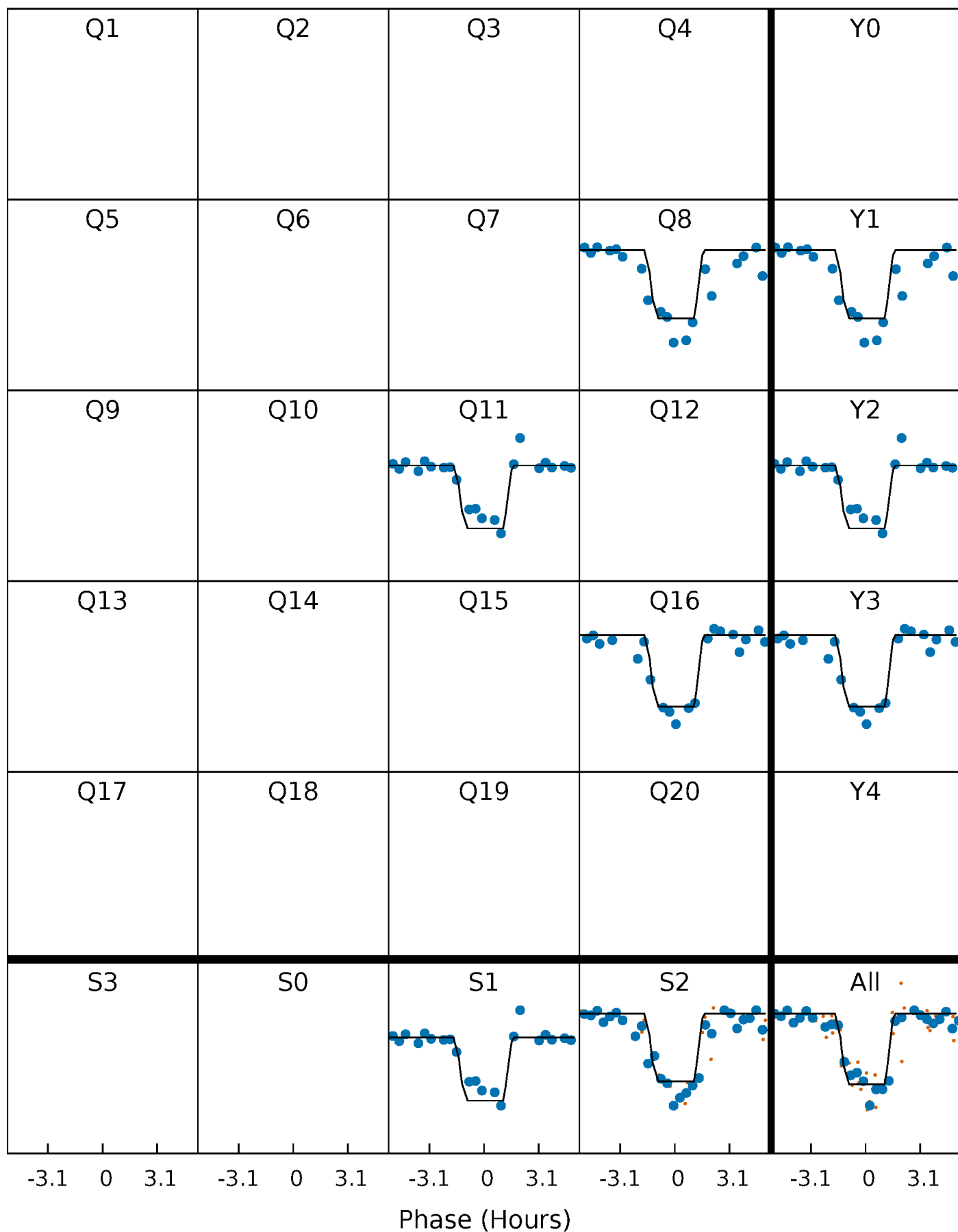
DV Quarter-Phased Transit Curves

TCE 011555805-05 $P=263.790251$ Days $T_0=222.321857$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

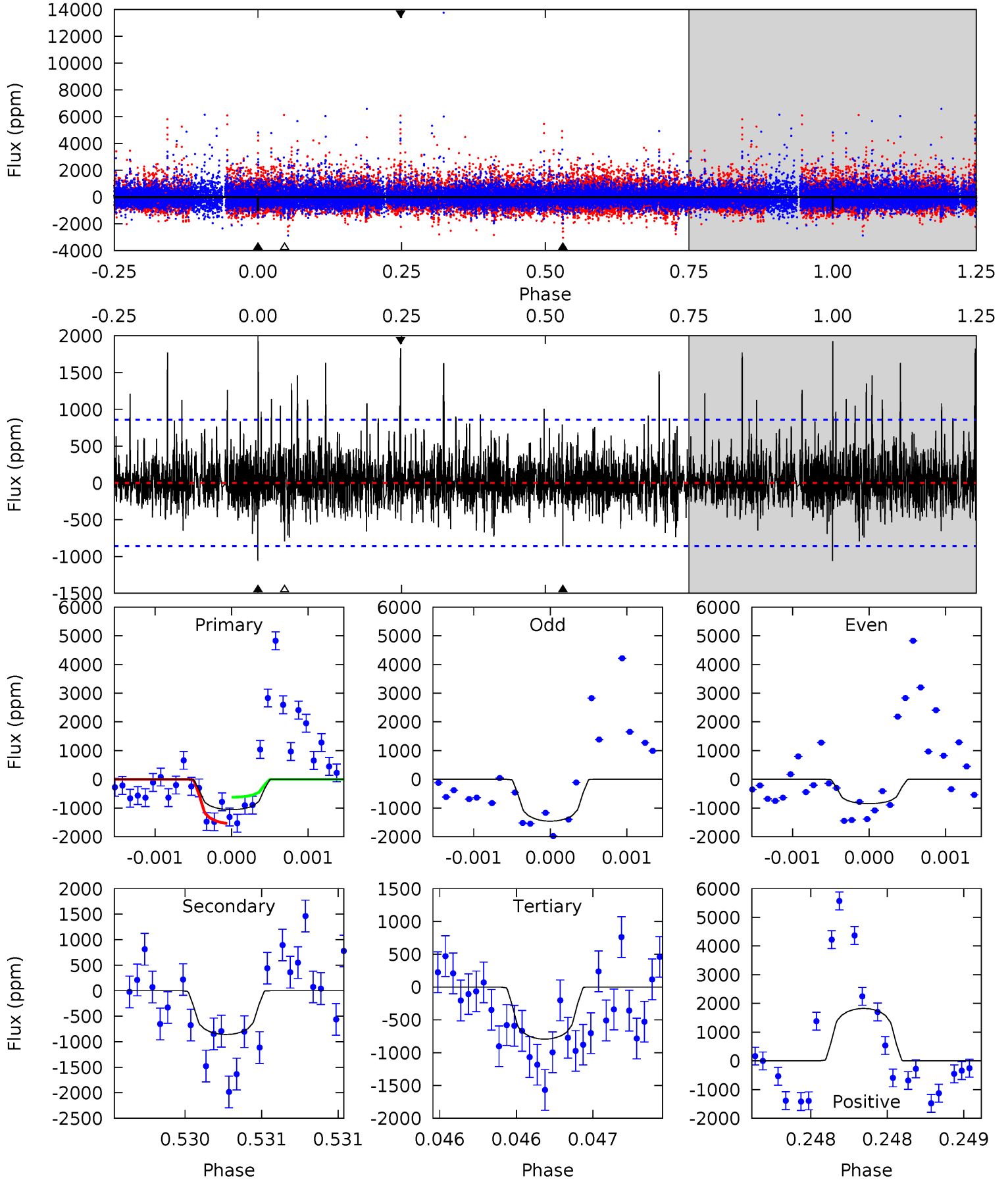
TCE 011555805-05 $P=263.782329$ Days $T_0=222.343614$ (BKJD)



DV Model-Shift Uniqueness Test

011555805-05, P = 263.790251 Days, E = 222.321857 Days

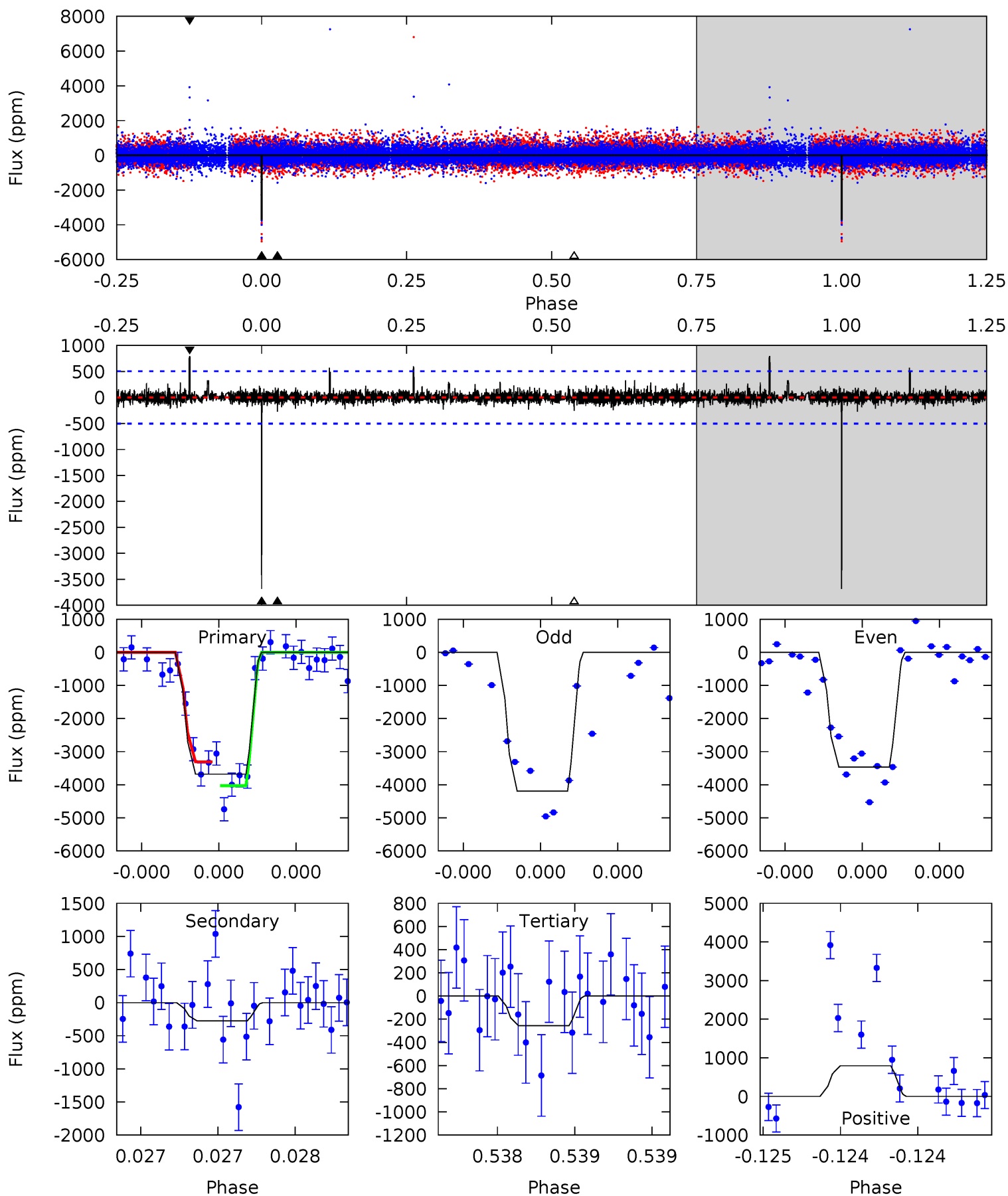
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.86	5.56	5.15	11.8	5.56	3.46	1.62	1.71	-4.98	0.42	-6.27	1.36	1.01	0.65	2.97



Alt Model-Shift Uniqueness Test

011555805-05, P = 263.782329 Days, E = 222.343614 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.7	3.02	2.84	8.78	5.58	3.49	0.72	37.9	31.9	0.19	-5.75	3.62	0.95	0.18	3.89



Stellar Parameters For KIC 011555805

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3954^{+78}_{-94}	$4.738^{+0.032}_{-0.039}$	$-0.200^{+0.200}_{-0.200}$	$0.527^{+0.038}_{-0.038}$	$0.555^{+0.035}_{-0.047}$	$5.324^{+0.857}_{-0.805}$
	+2%/-2%	+1%/-1%	+100%/-100%	+7%/-7%	+6%/-8%	+16%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011555805-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-859 ± 154	$3.01^{+2.27}_{-1.69}$	217^{+6}_{-5}	3268^{+1091}_{-501}	$22625^{+107492}_{-15430}$
Alt.	-273 ± 90	$3.73^{+2.42}_{-2.23}$	218^{+6}_{-6}	2628^{+757}_{-321}	4477^{+21710}_{-2941}

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 $A_{\text{obs}} \gg 1.0$

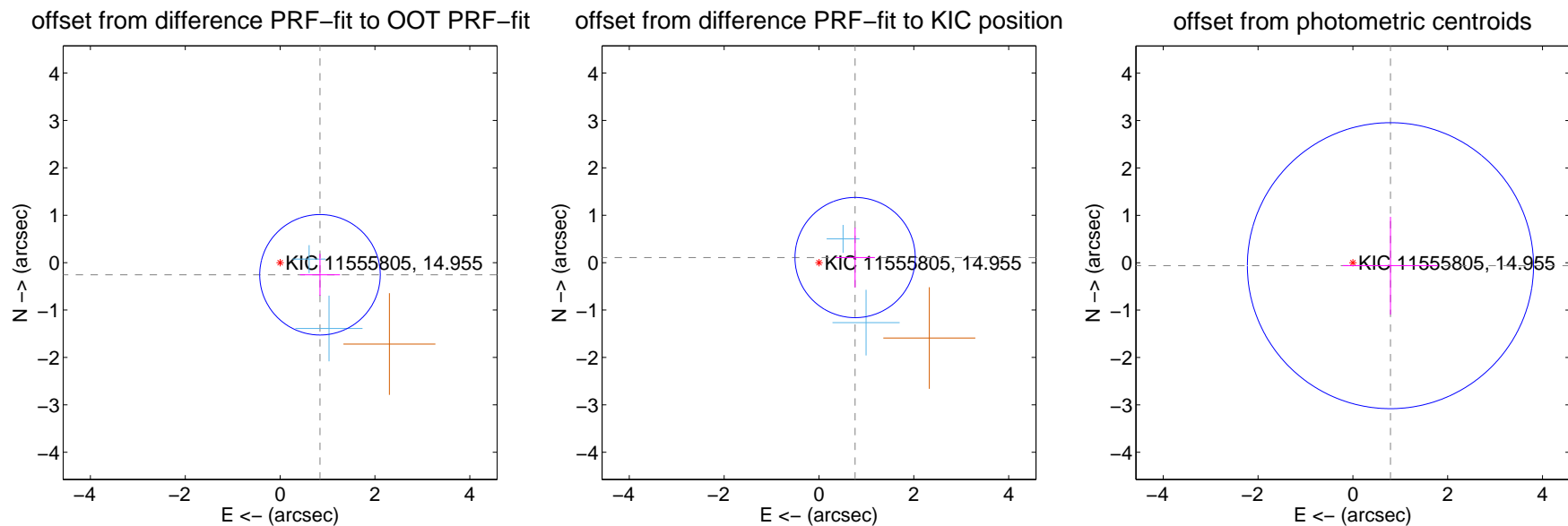
DV Centroid Data

Supplemental centroid analysis for 011555805-05. Kepler magnitude: 14.96. Transit SNR 7.93

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.879 ± 0.423	2.08	-0.841 ± 0.422	-0.256 ± 0.442
PRF-fit source offset from KIC position	0.769 ± 0.423	1.82	-0.762 ± 0.417	0.107 ± 0.629
photometric centroid source offset	0.79 ± 1.01	0.79	-0.79 ± 1.01	-0.06 ± 1.03

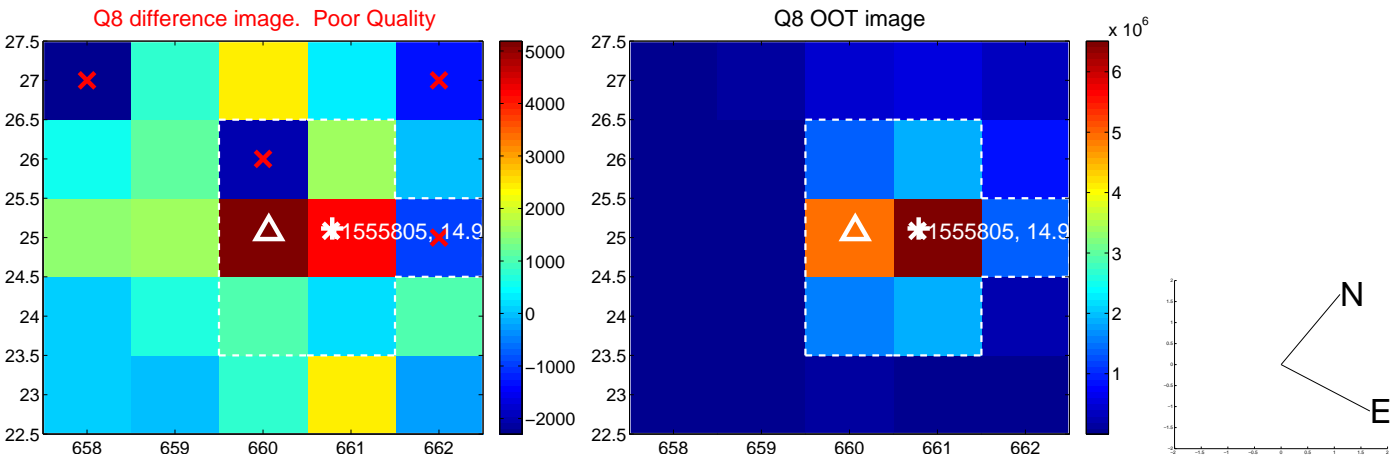


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

Q9 no difference image



Q9 no OOT image



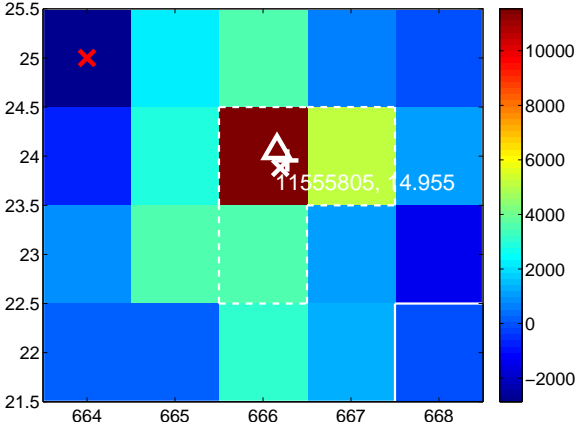
Q10 no difference image



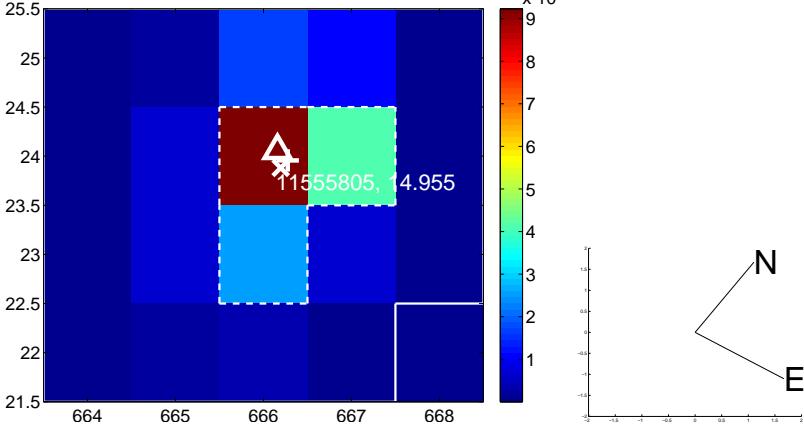
Q10 no OOT image



Q11 difference image



Q11 OOT image



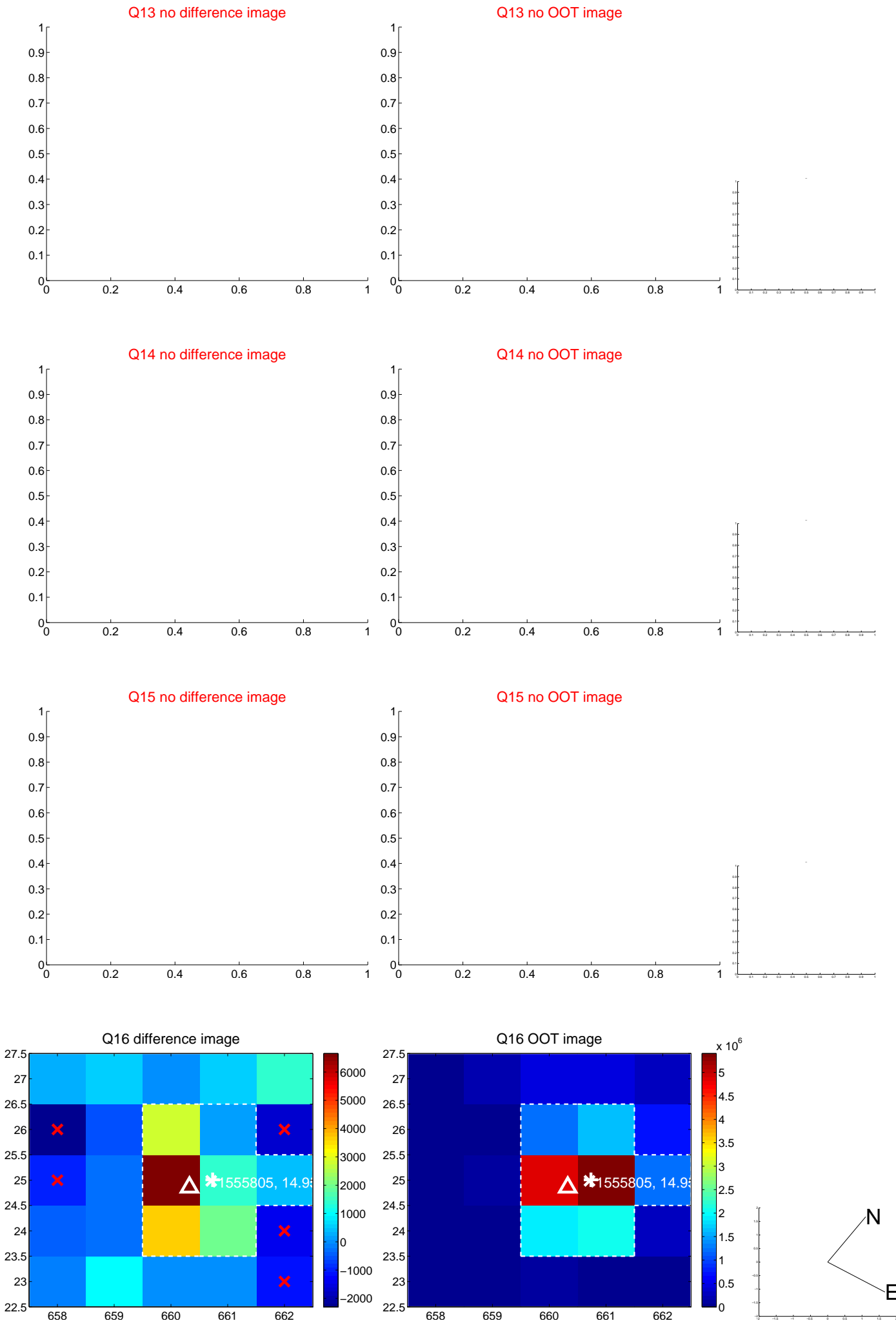
Q12 no difference image



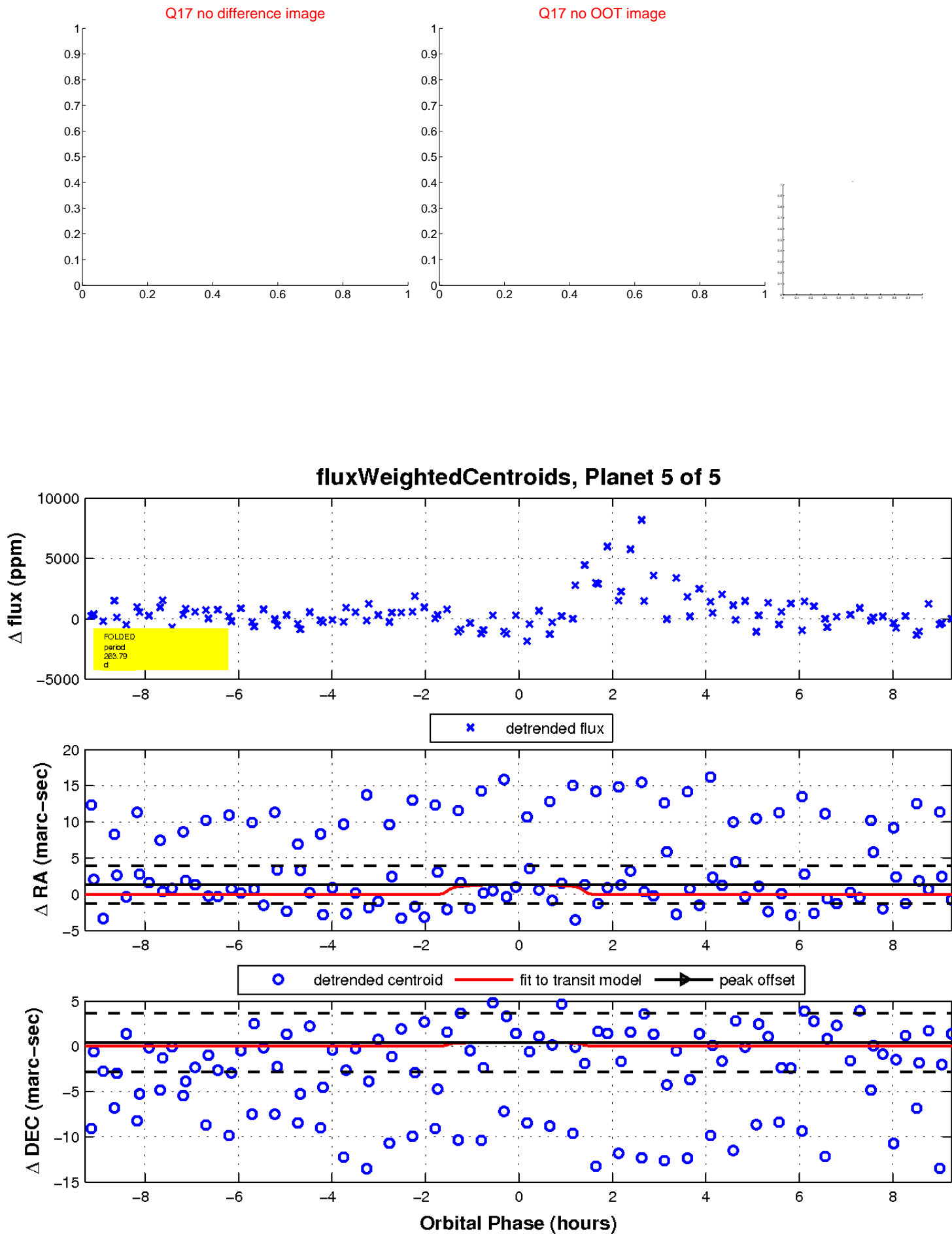
Q12 no OOT image



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

