

KIC 007902286

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})
007902286-01	OBS	No	1.518683	133.013004	107.9	8.073	7.6	8.6	1.46	6942	1.67	5074.36
007902286-02	OBS	No	157.624356	148.932113	4115.5	5.158	11.9	9.0	1.46	6942	9.44	10.40
007902286-03	OBS	No	603.039651	135.779857	3600.4	55.772	10.6	8.7	1.46	6942	9.22	1.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007902286-01	OBS	FP	0.00	1	0	0	0	LPP_DV
007902286-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
007902286-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

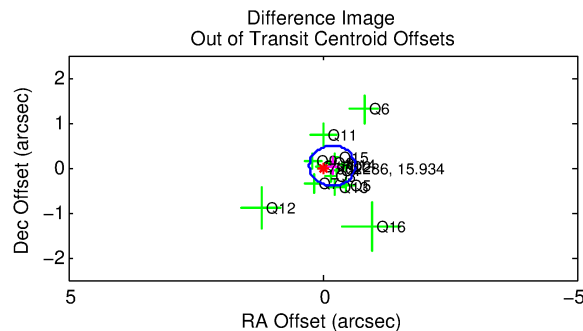
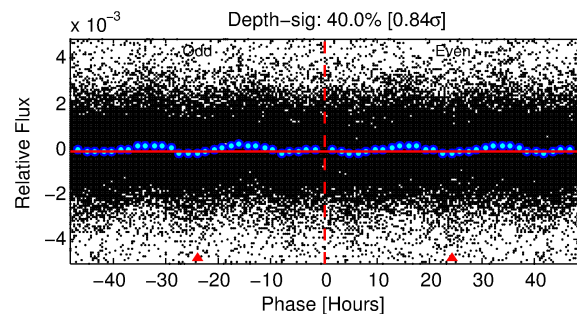
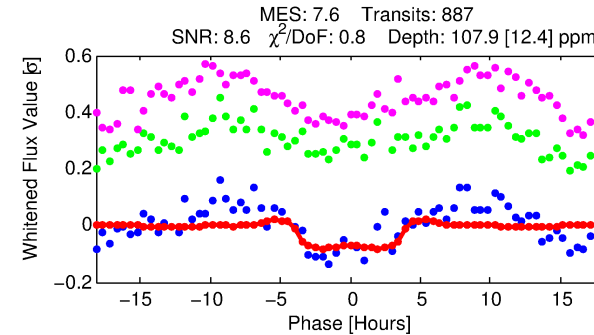
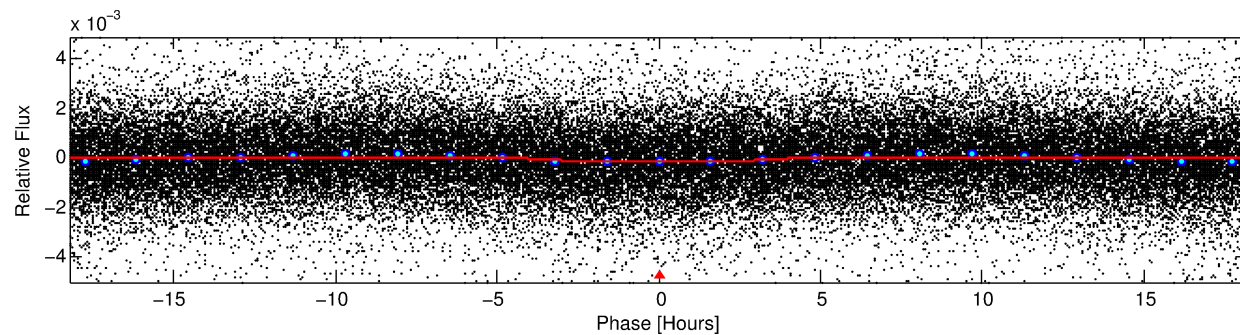
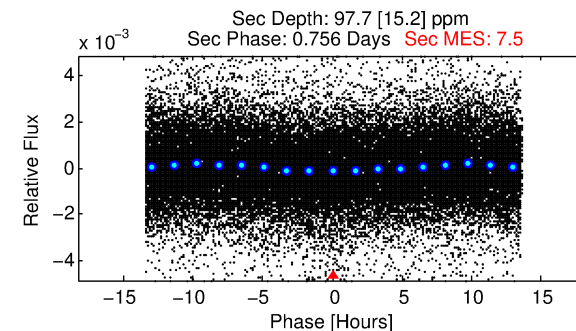
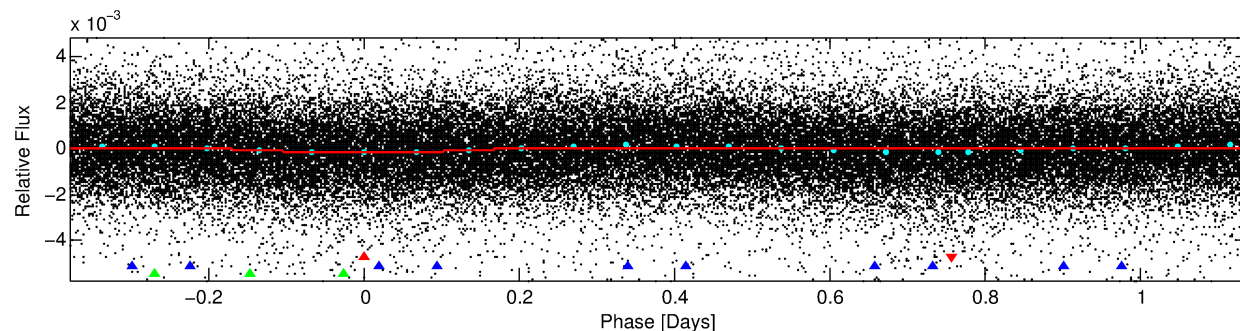
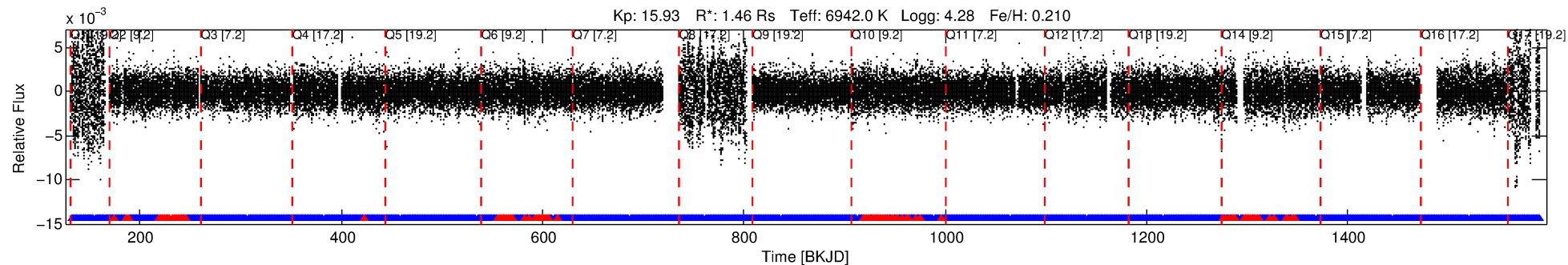
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007902286-01

No Significant Match Found

DV One-Page Summary

KIC: 7902286 Candidate: 1 of 3 Period: 1.519 d



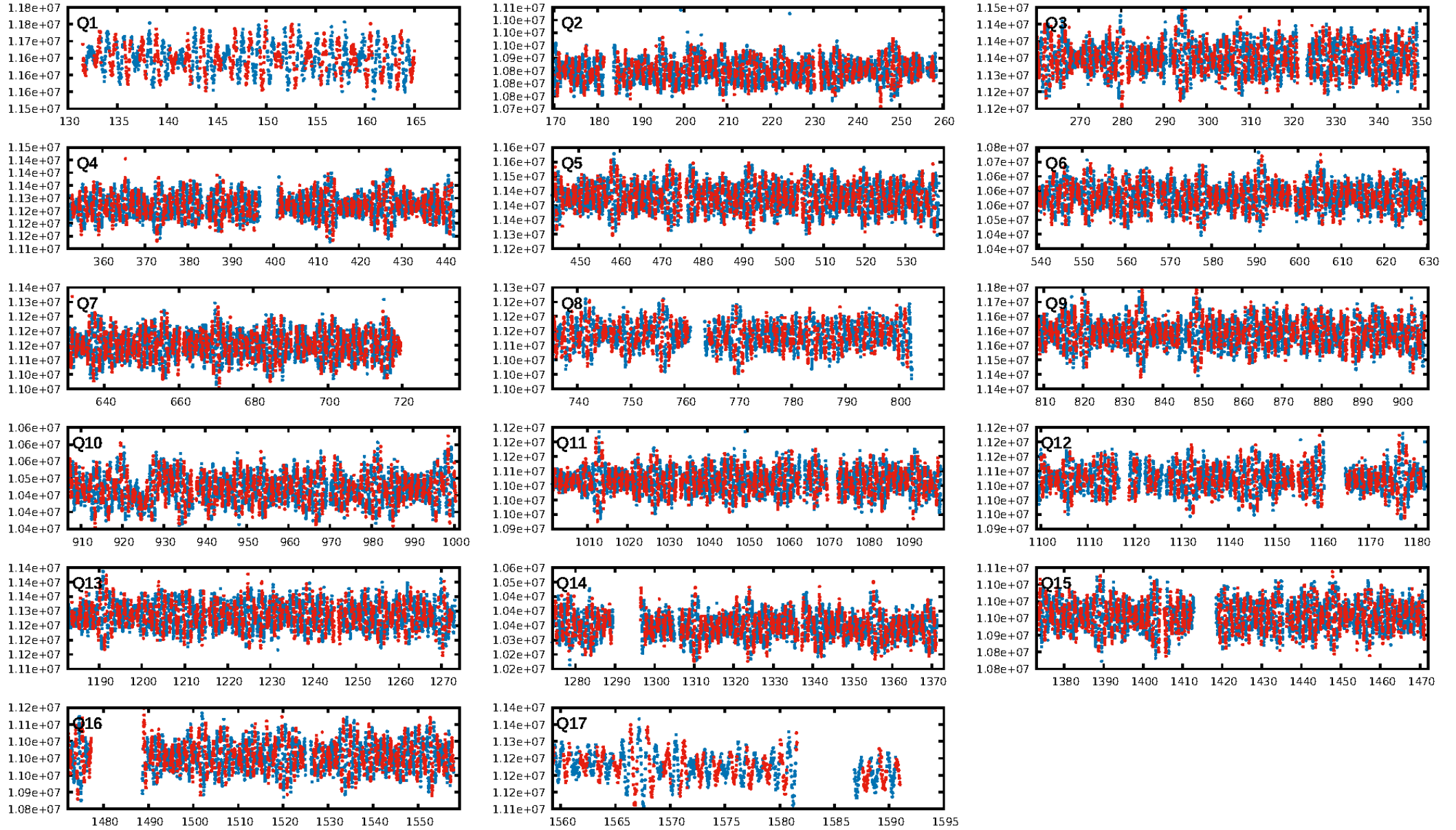
DV Fit Results:

Period = 1.51868 [0.00002] d
Epoch = 133.0130 [0.0076] BKJD
Rp/R* = 0.0105 [0.0050]
a/R* = 1.25 [1.27]
b = 0.80 [1.28]
Seff = 5074.36 [2102.32]
Teq = 2152 [223] K
Rp = 1.67 [0.92] Re
a = 0.0295 [0.0070] AU
Ag = 16.82 [17.21] [0.92σ]
Teffp = 6739 [1669] K [2.72σ]

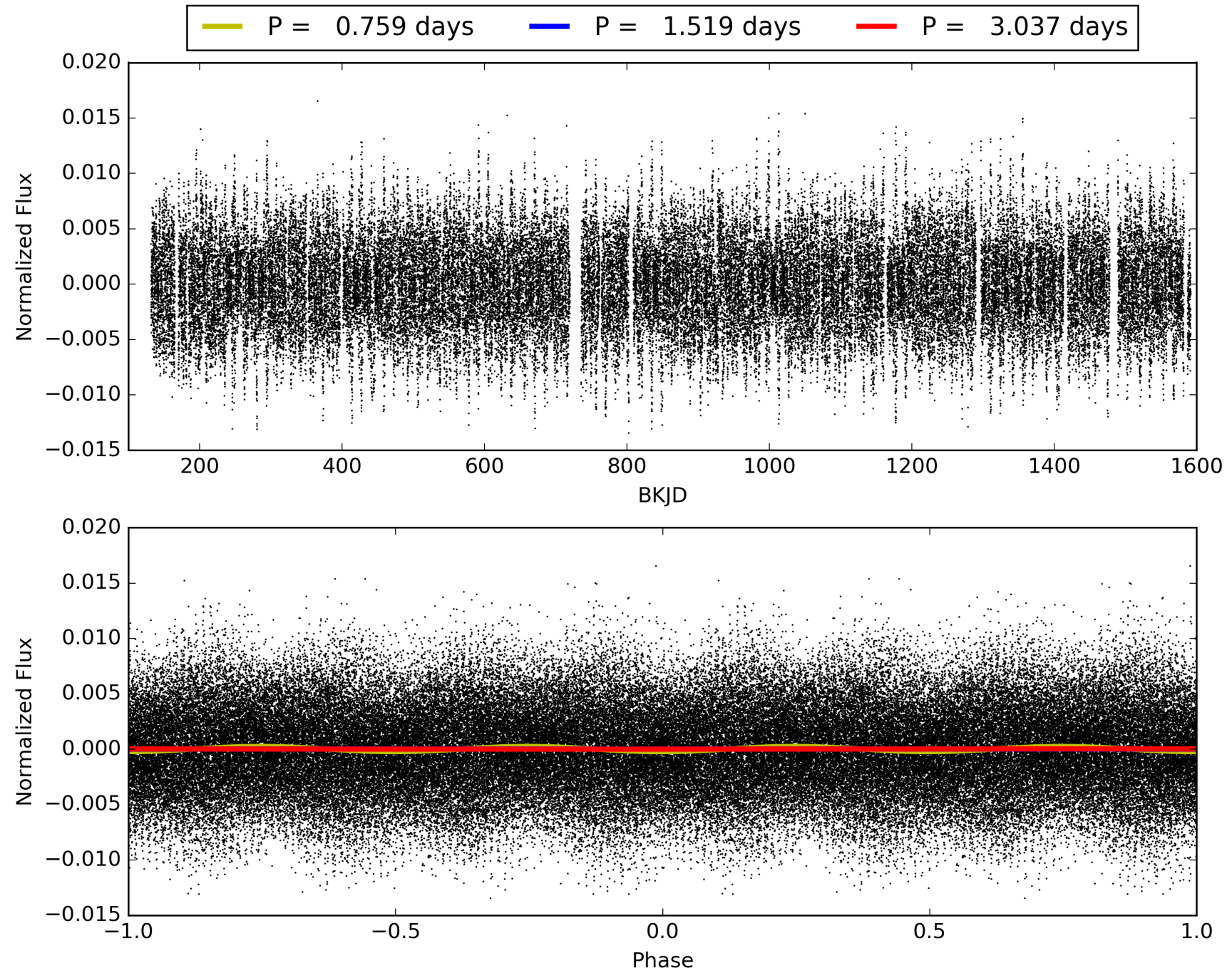
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [391.08σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.04e-10
RollingBand-fgt: 0.89 [752/847]
GhostDiagnostic-chr: 1.122
Centroid-sig: 6.7%
Centroid-so: 1.330 arcsec [1.44σ]
OotOffset-rm: 0.191 arcsec [1.27σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-rm: 0.209 arcsec [1.32σ]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.67 [10/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007902286-01, PDC Light Curves

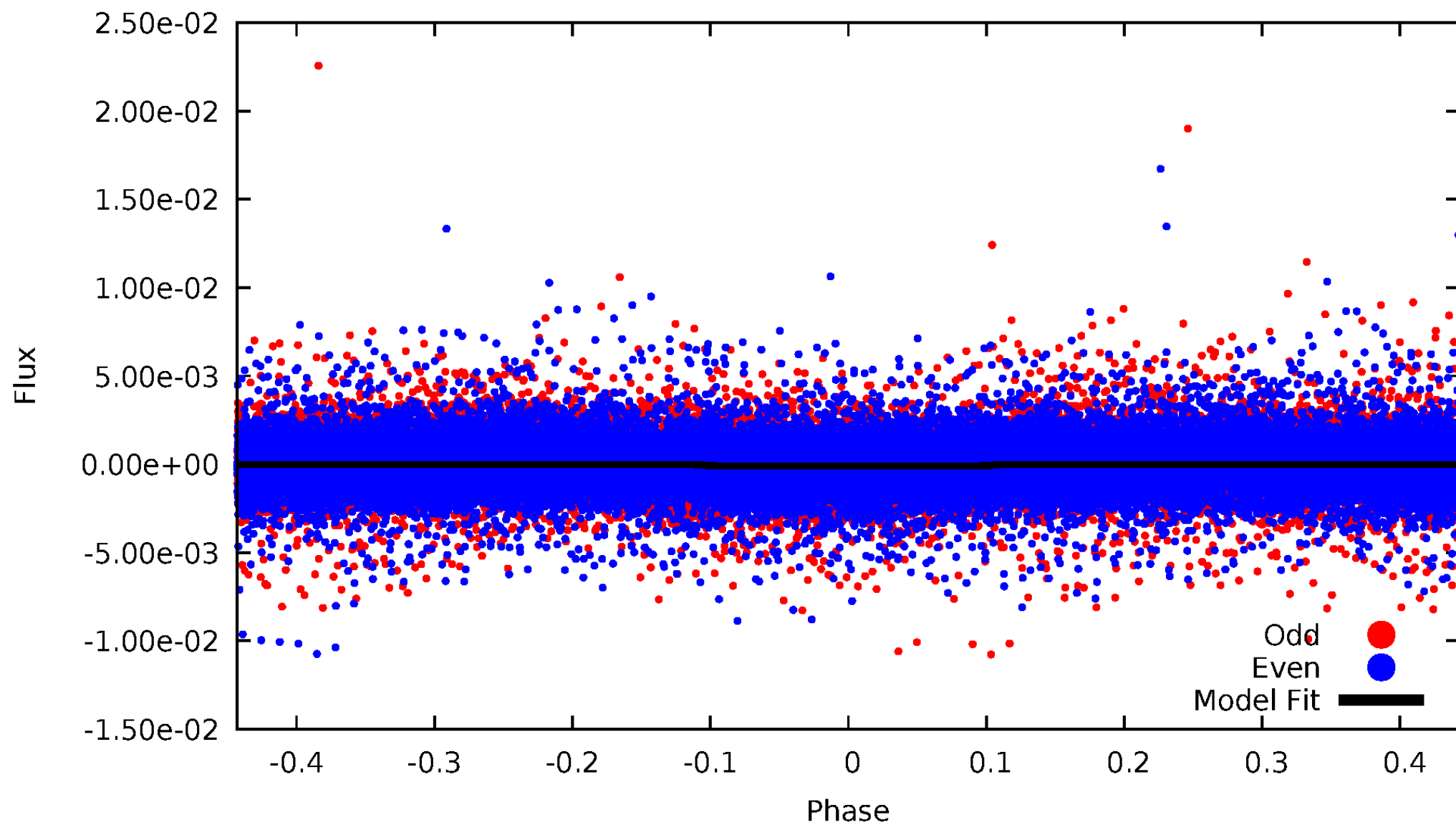


TCE 007902286-01



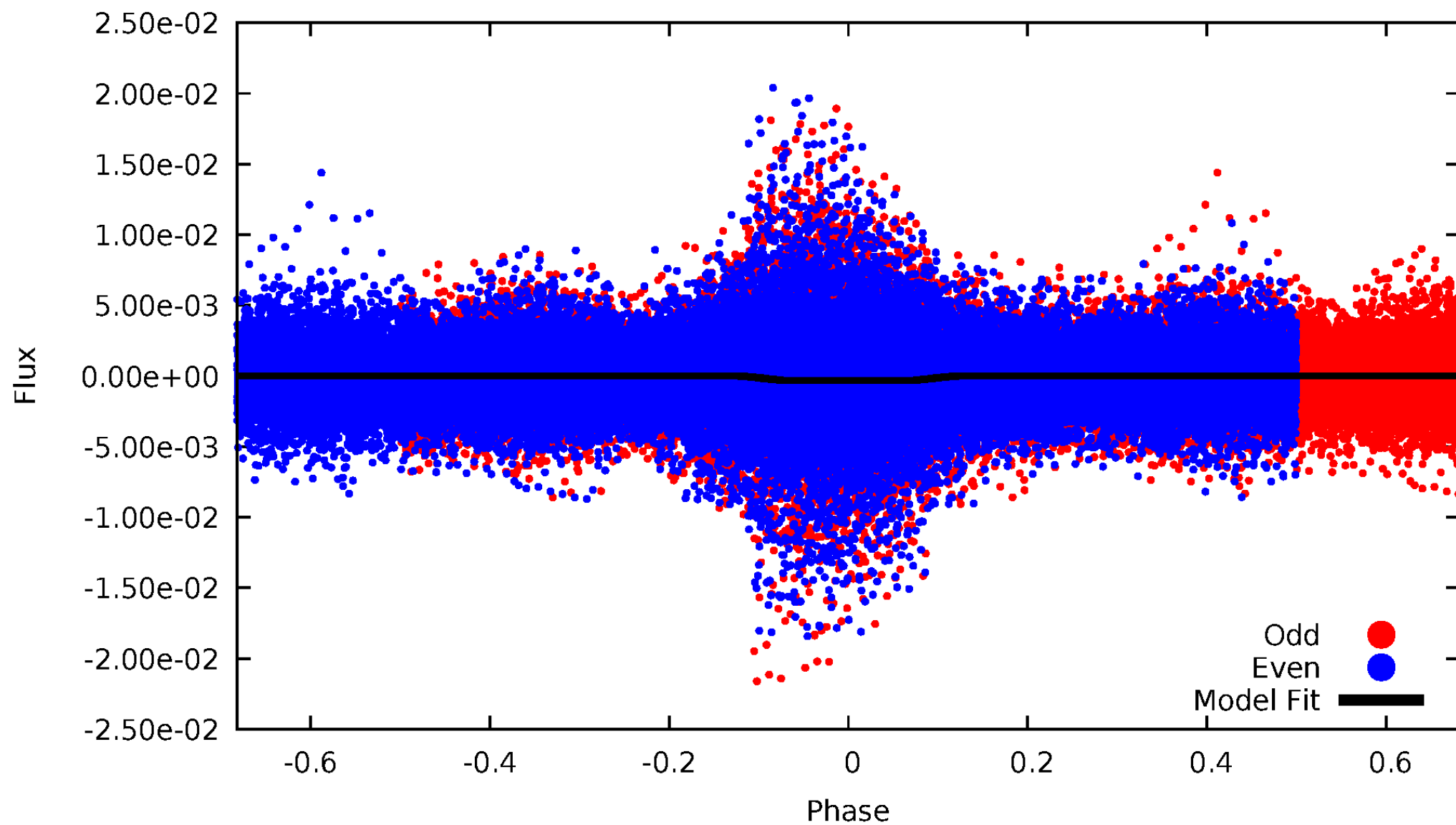
DV Odd/Even

TCE 007902286-01



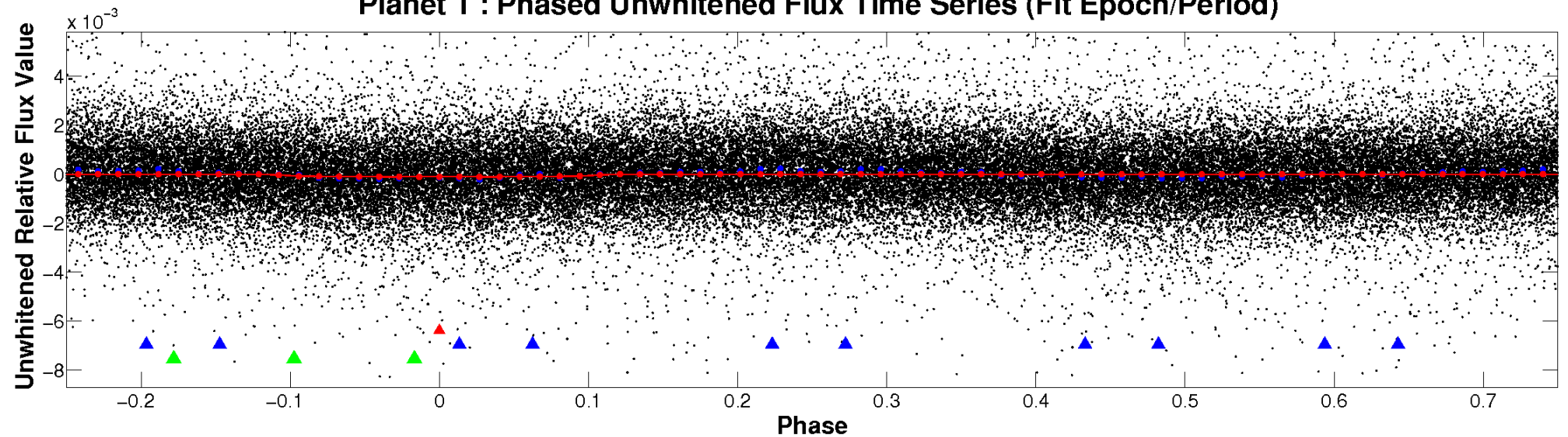
ALT Odd/Even

TCE 007902286-01

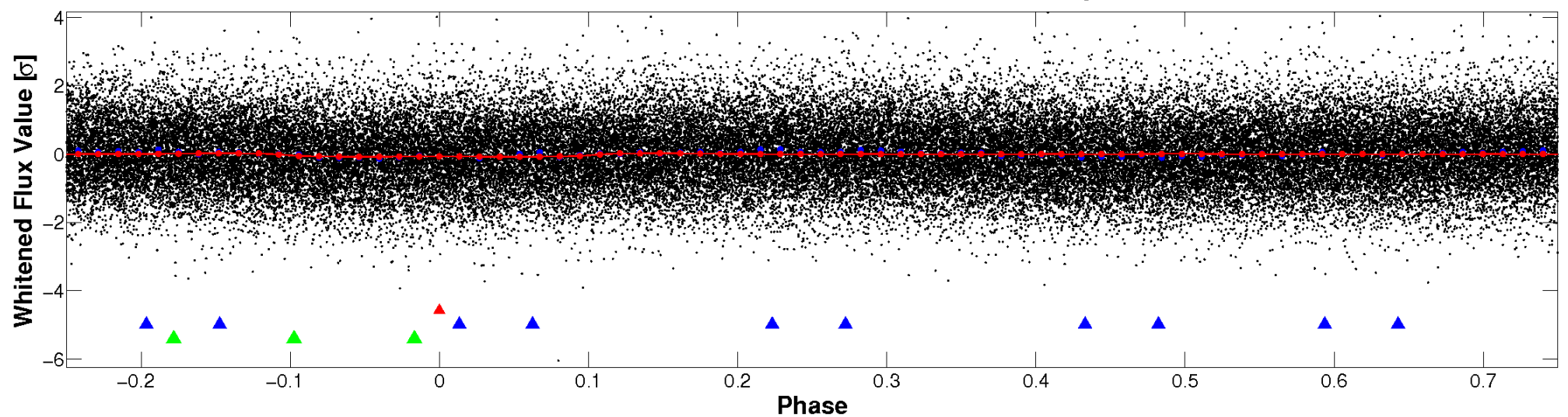


Non-Whitened Vs. Whitened Light Curve

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

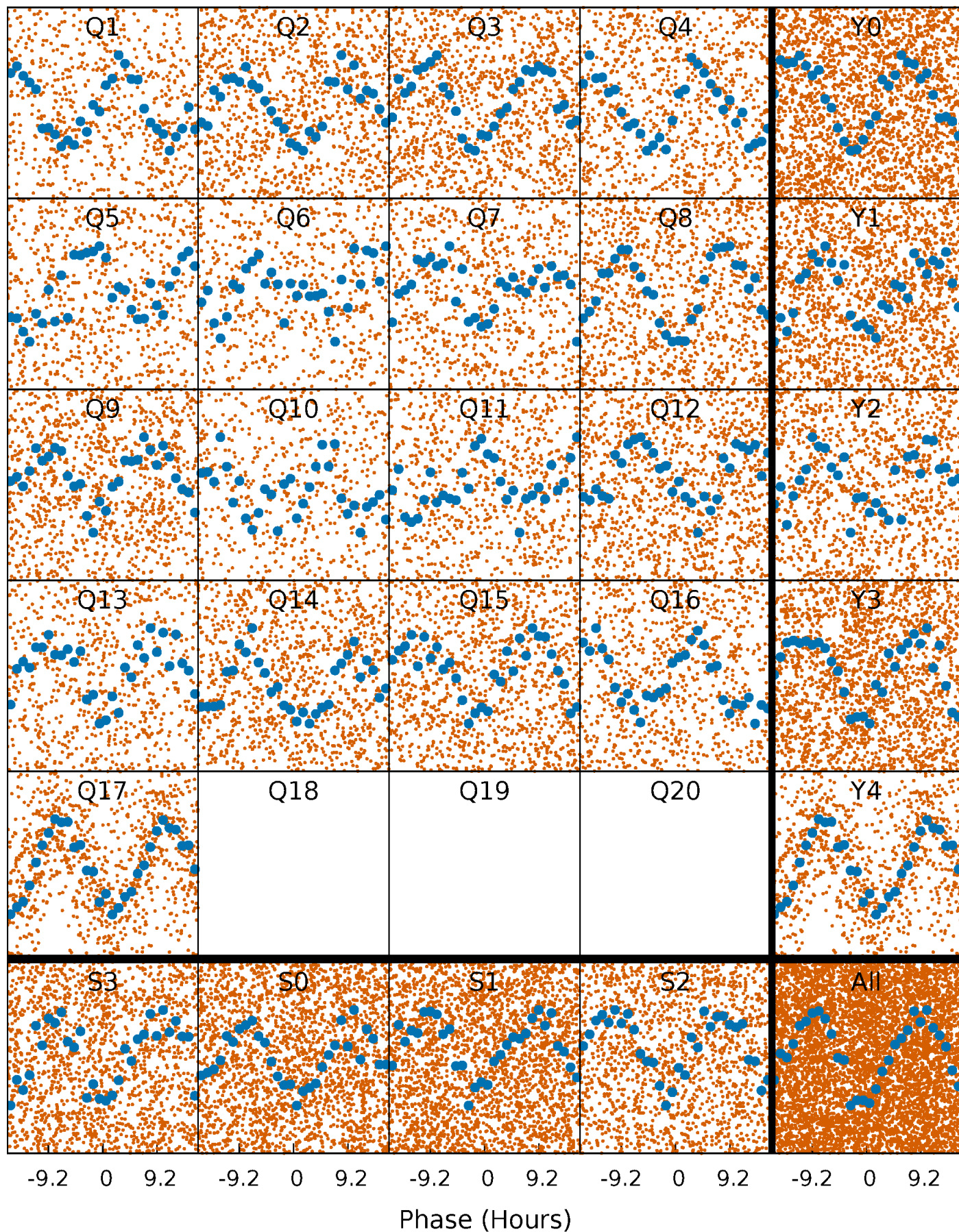


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



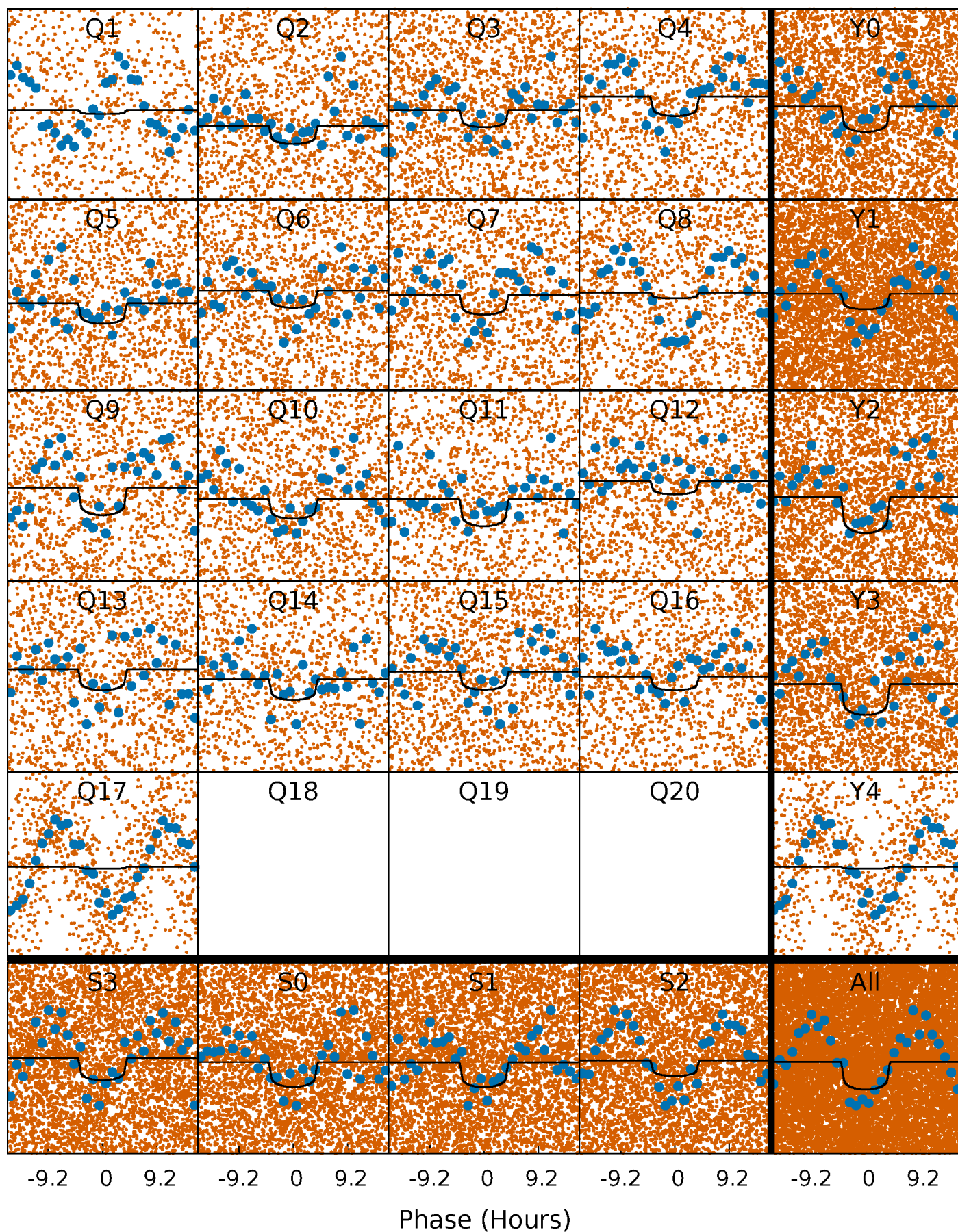
PDC Quarter-Phased Transit Curves

TCE 007902286-01 P= 1.518683 Days $T_0=133.013004$ (BKJD)



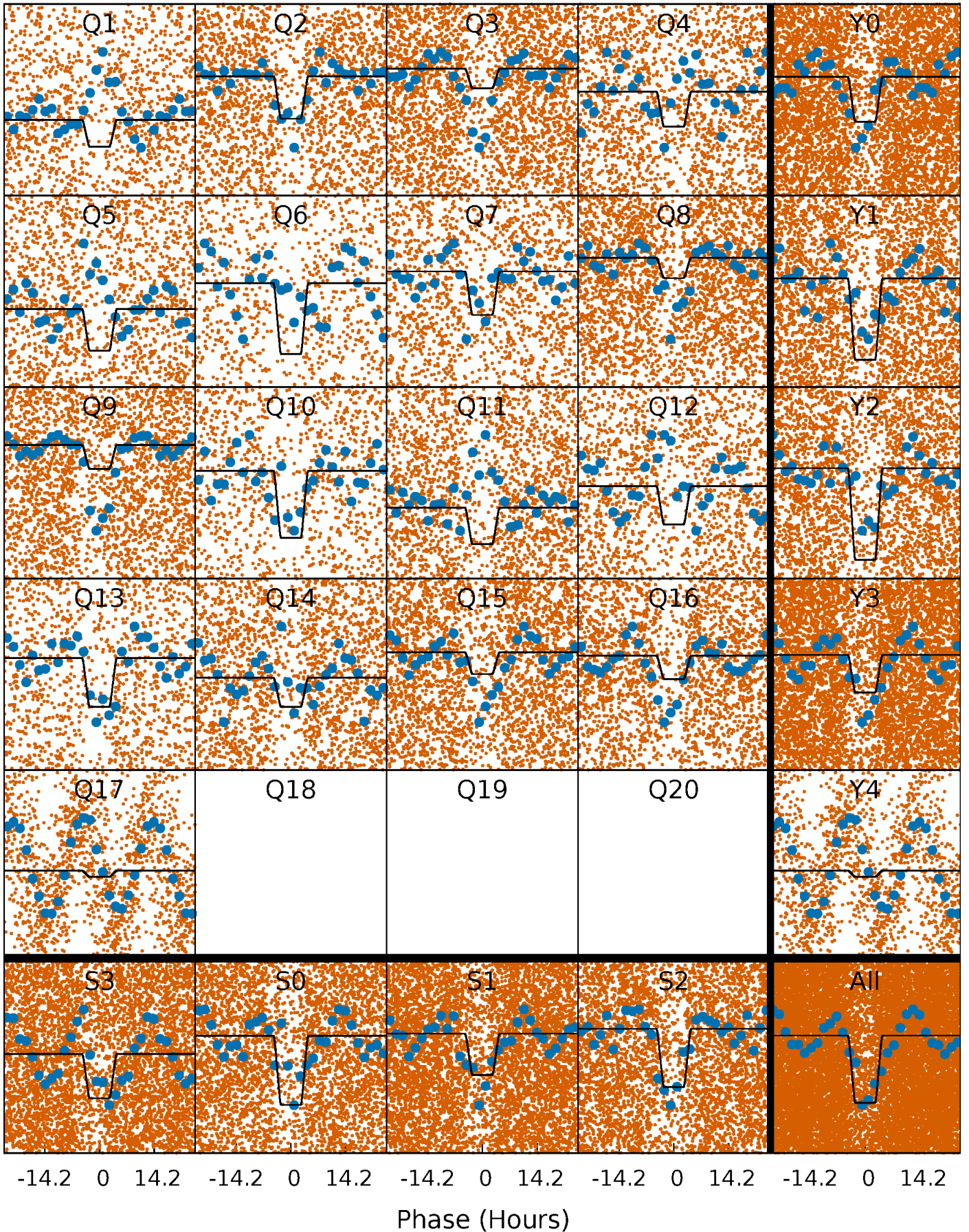
DV Quarter-Phased Transit Curves

TCE 007902286-01 P= 1.518683 Days $T_0=133.013004$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

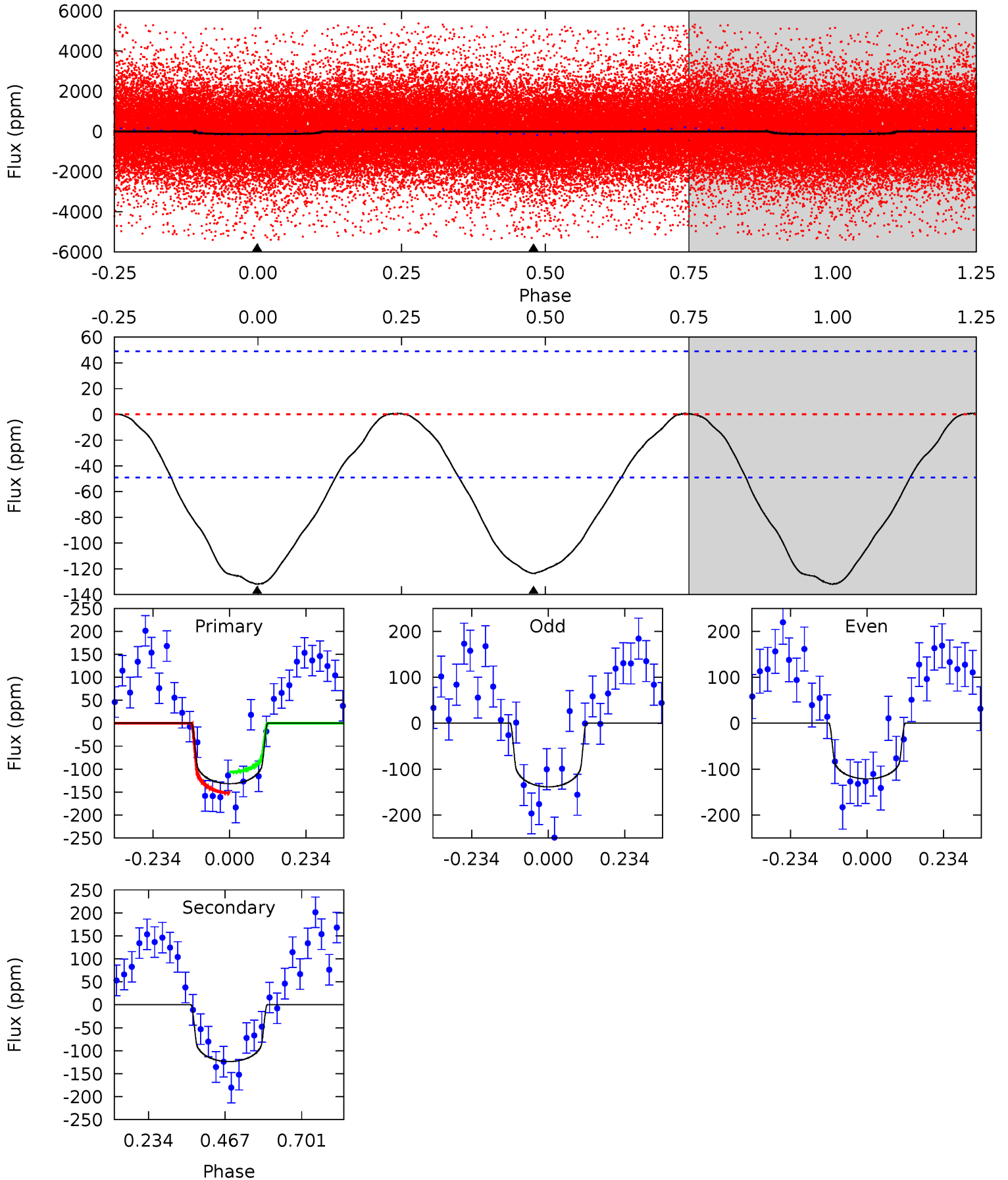
TCE 007902286-01 P= 1.518521 Days $T_0=131.526331$ (BKJD)



DV Model-Shift Uniqueness Test

007902286-01, P = 1.518683 Days, E = 131.494321 Days

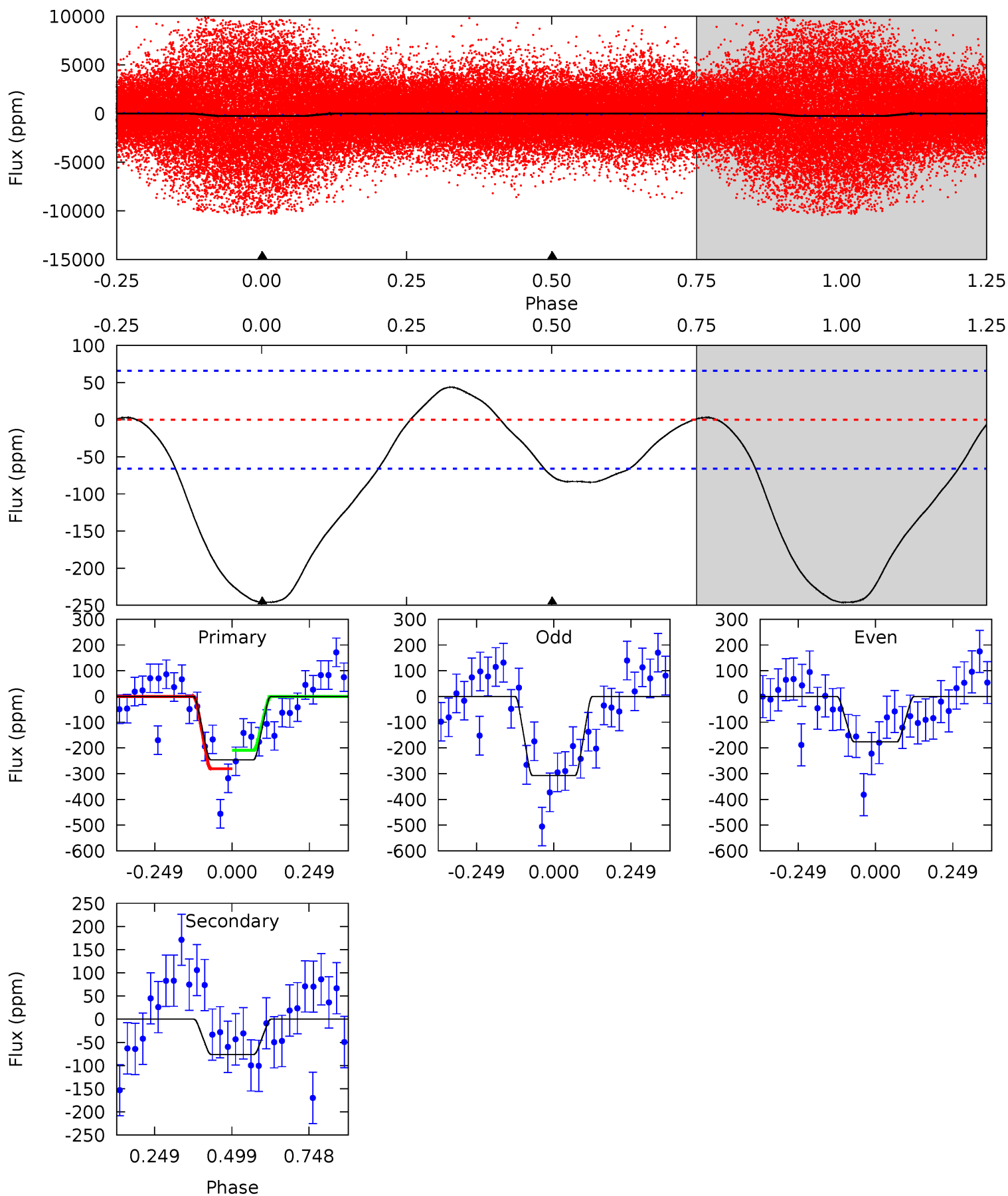
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	11.0	0	0	4.38	1.19	0.24	11.8	11.8	11.0	11.0	0.78	1.33	0.01	2.10



Alt Model-Shift Uniqueness Test

007902286-01, P = 1.518521 Days, E = 130.007810 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	5.04	0	0	4.37	1.15	0.73	16.3	16.3	5.04	5.04	4.31	0.87	0.15	0



Stellar Parameters For KIC 007902286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6942^{+216}_{-401}	$4.283^{+0.062}_{-0.188}$	$0.210^{+0.150}_{-0.350}$	$1.458^{+0.409}_{-0.220}$	$1.488^{+0.166}_{-0.222}$	$0.675^{+0.258}_{-0.319}$
	+3%/-6%	+1%/-4%	+71%/-167%	+28%/-15%	+11%/-15%	+38%/-47%
Source	PHO1	KIC0	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 007902286-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-124±11	$1.72^{+0.85}_{-0.77}$	3065^{+216}_{-192}	7158^{+3462}_{-1421}	19^{+44}_{-10}
Alt.	-76±15	$2.84^{+0.89}_{-0.84}$	3044^{+230}_{-188}	4886^{+857}_{-575}	$4.353^{+4.738}_{-1.922}$

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 $A_{obs} \gg 1.0$

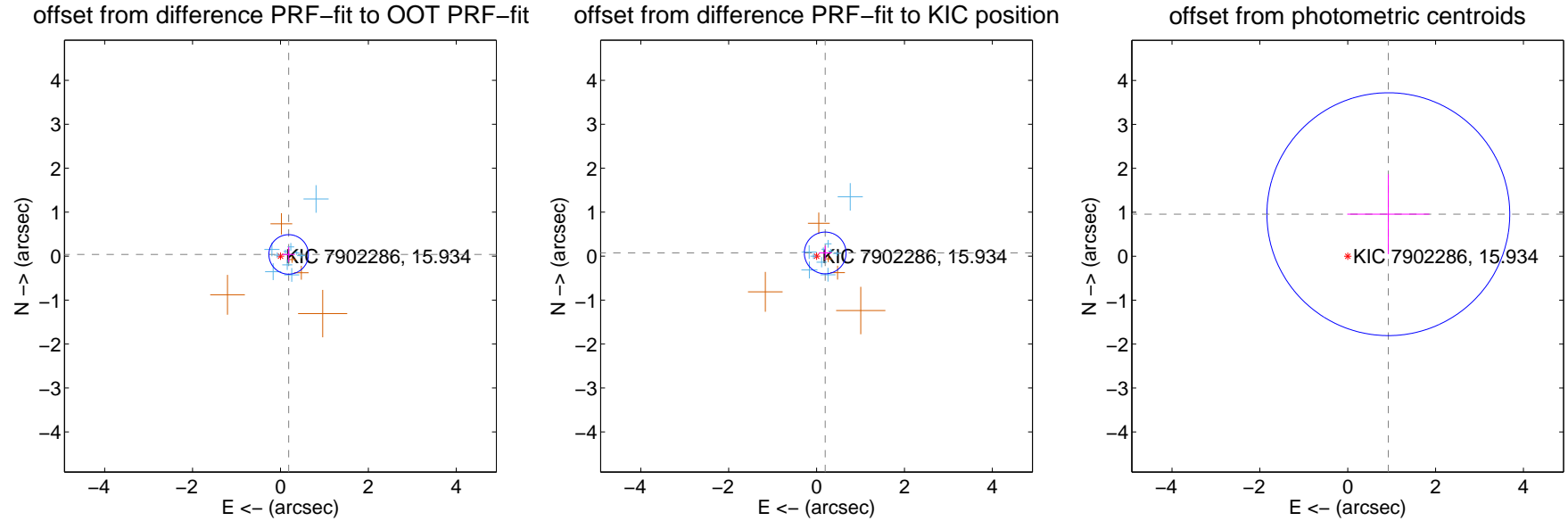
DV Centroid Data

Supplemental centroid analysis for 007902286-01. Kepler magnitude: 15.93. Transit SNR 8.61

There are 10 quarters with good PRF difference image offsets

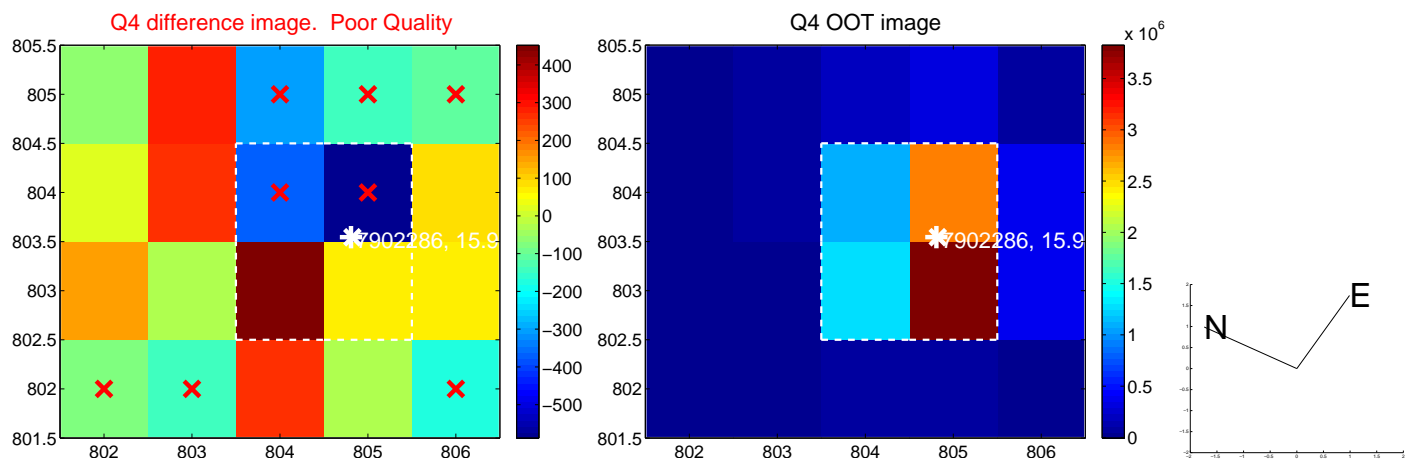
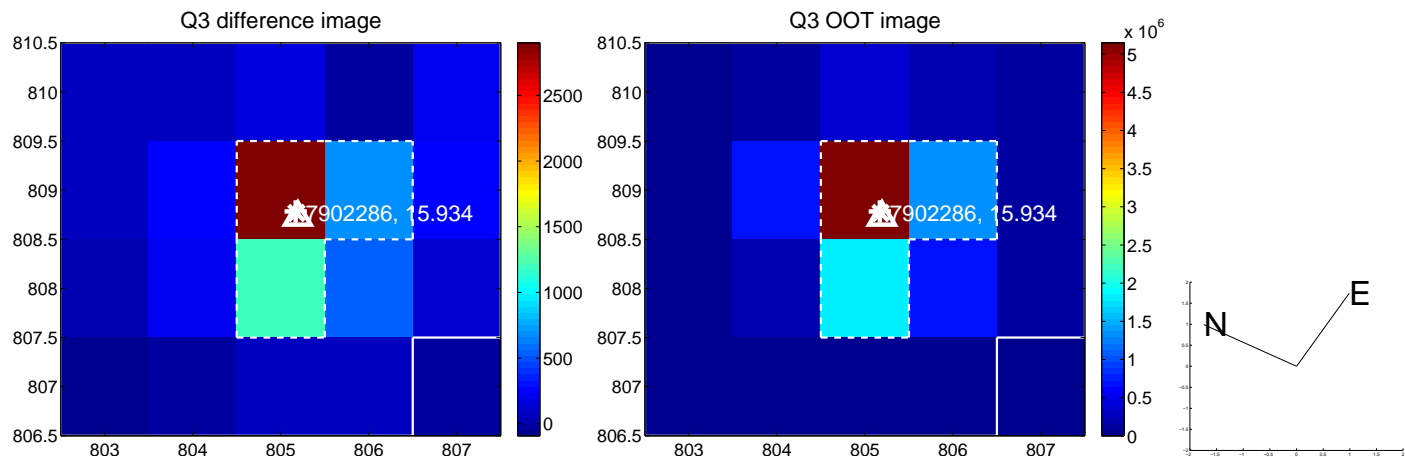
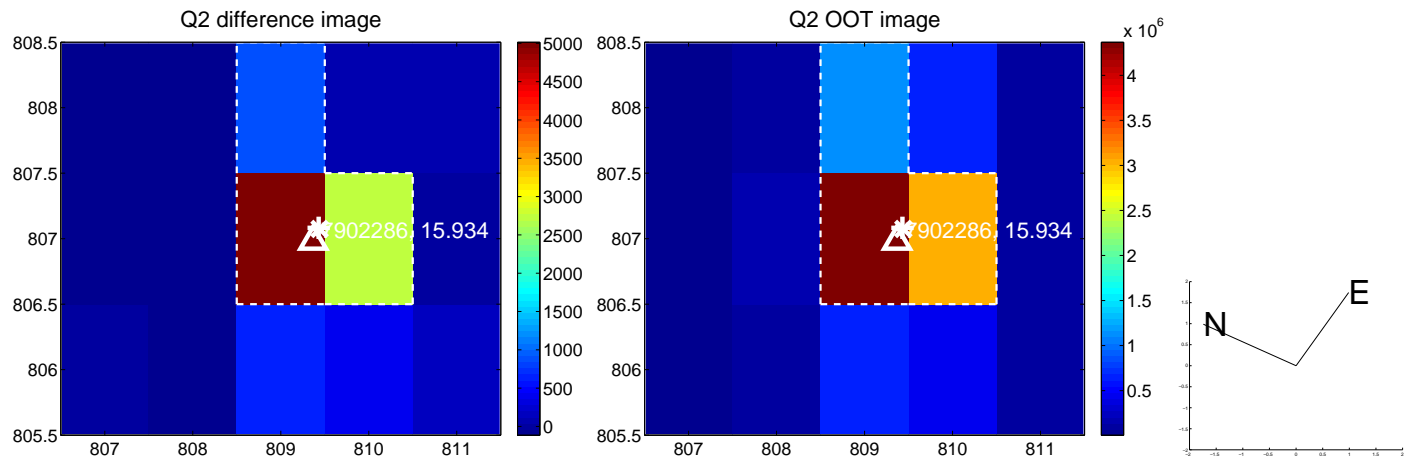
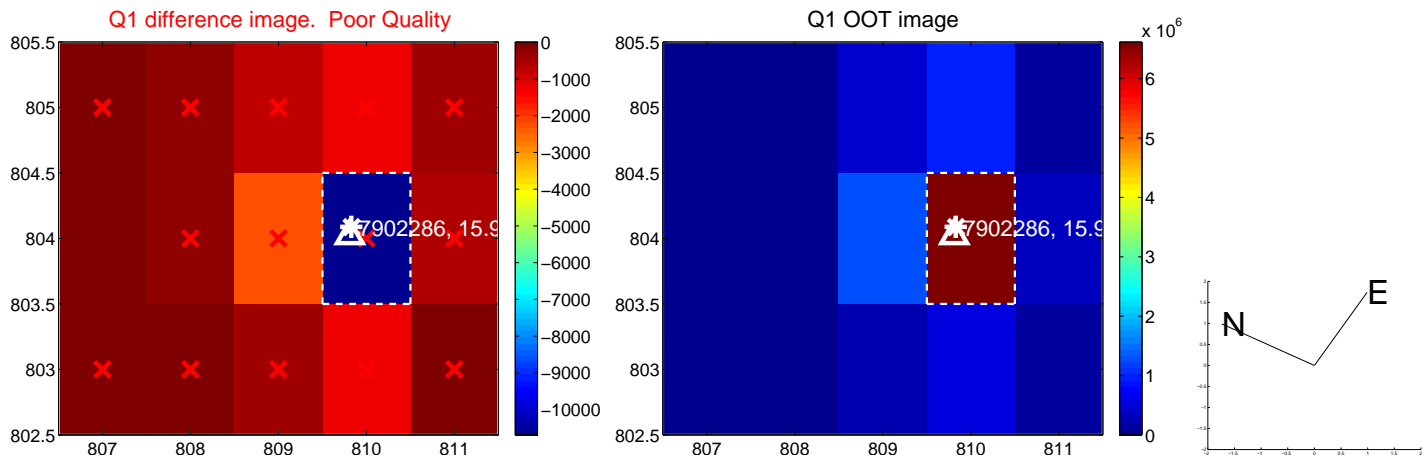
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.191 ± 0.150	1.27	-0.186 ± 0.142	0.039 ± 0.172
PRF-fit source offset from KIC position	0.209 ± 0.158	1.32	-0.196 ± 0.144	0.072 ± 0.164
photometric centroid source offset	1.33 ± 0.92	1.44	-0.92 ± 0.93	0.96 ± 0.91

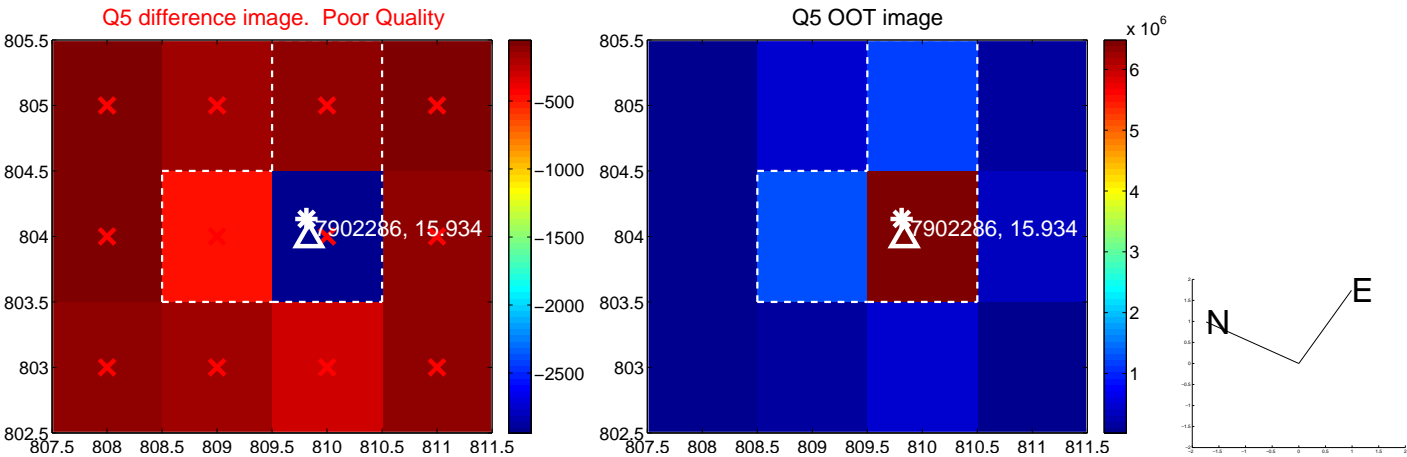


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

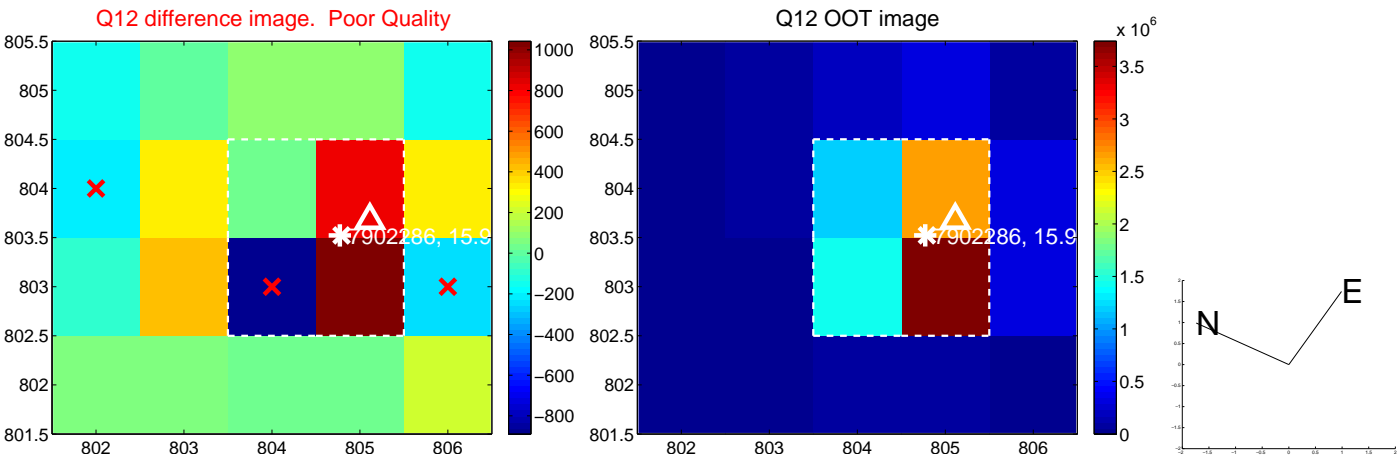
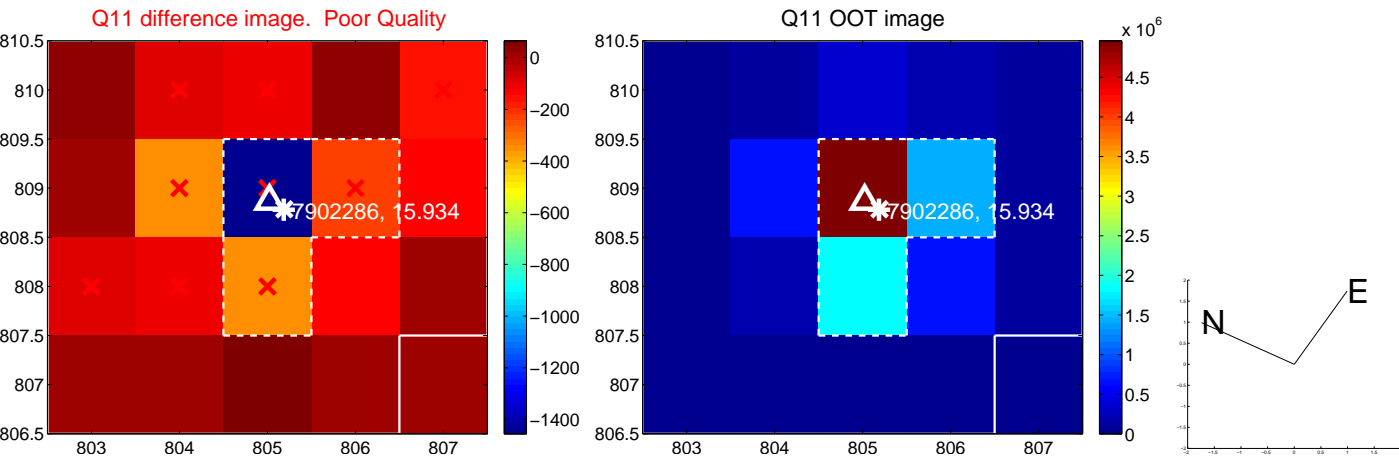
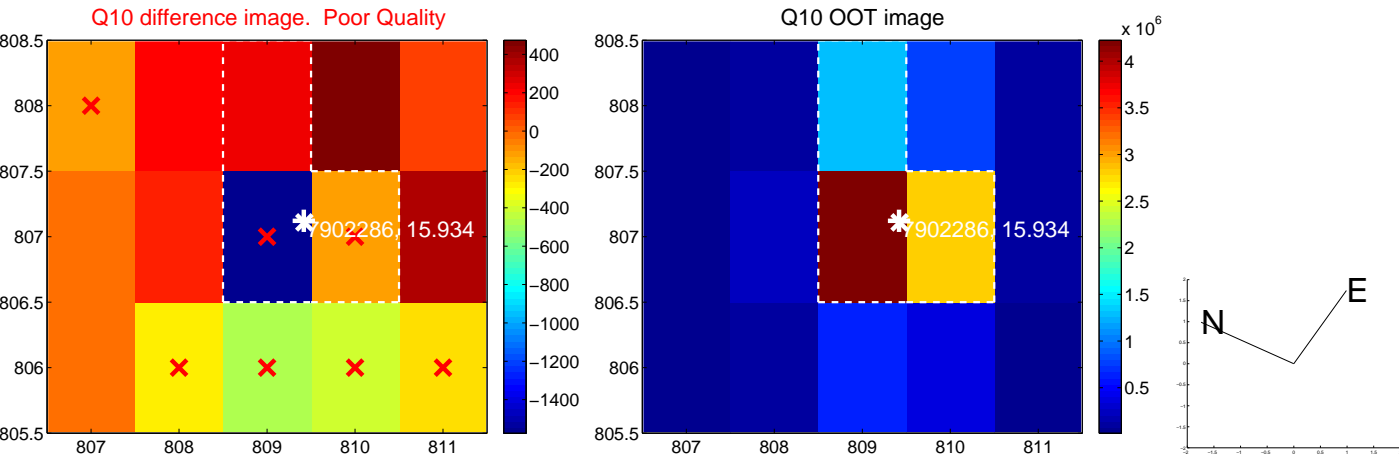
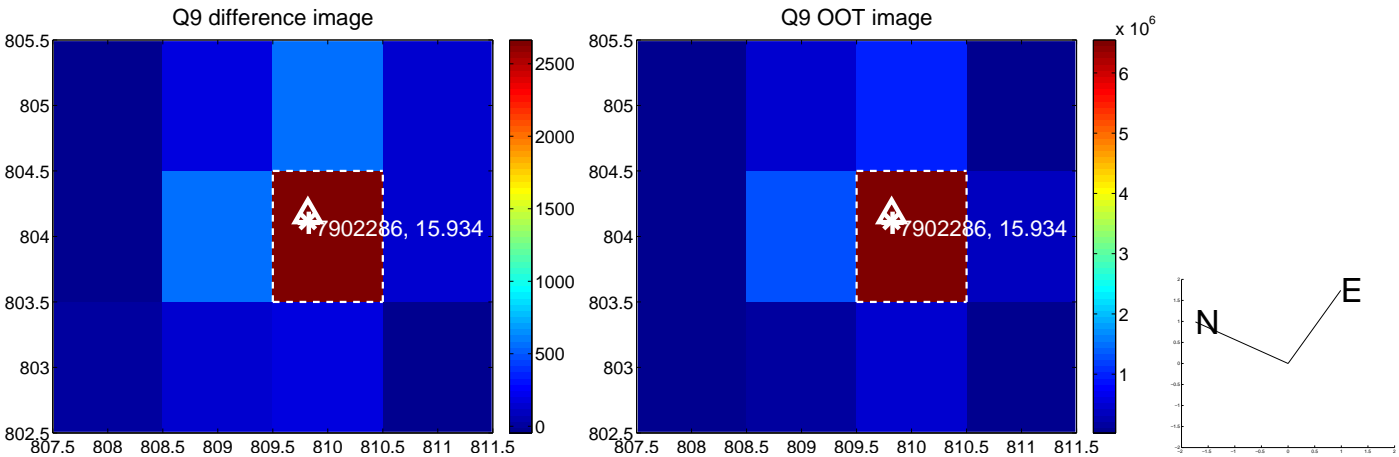
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



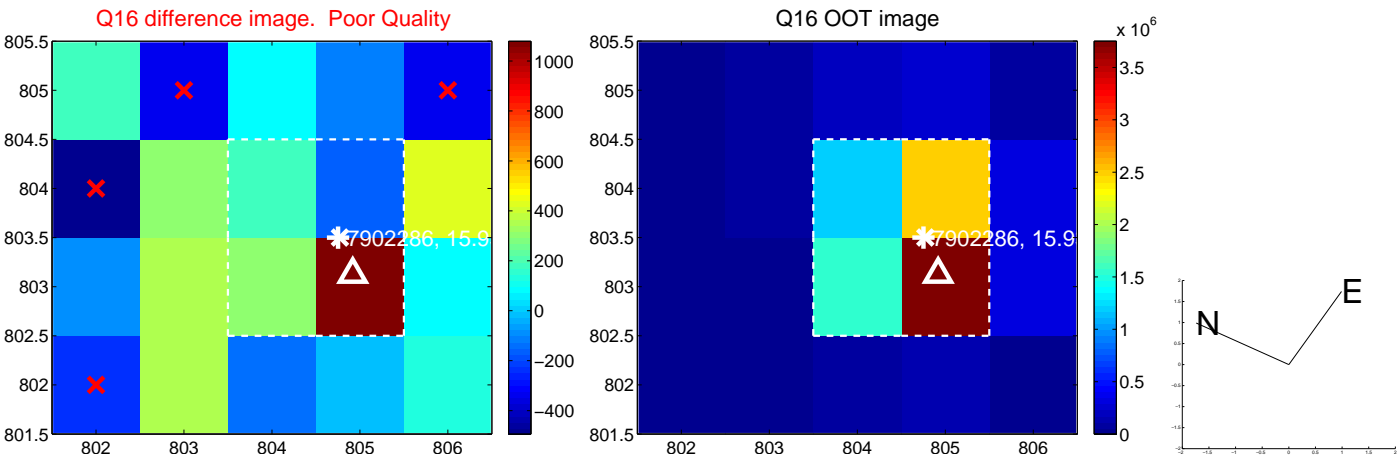
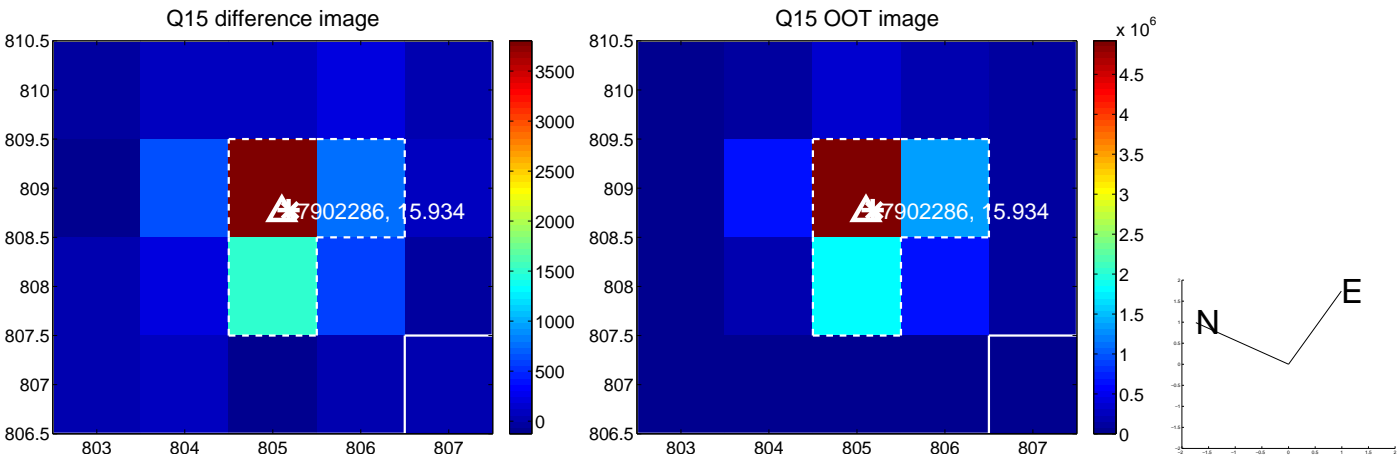
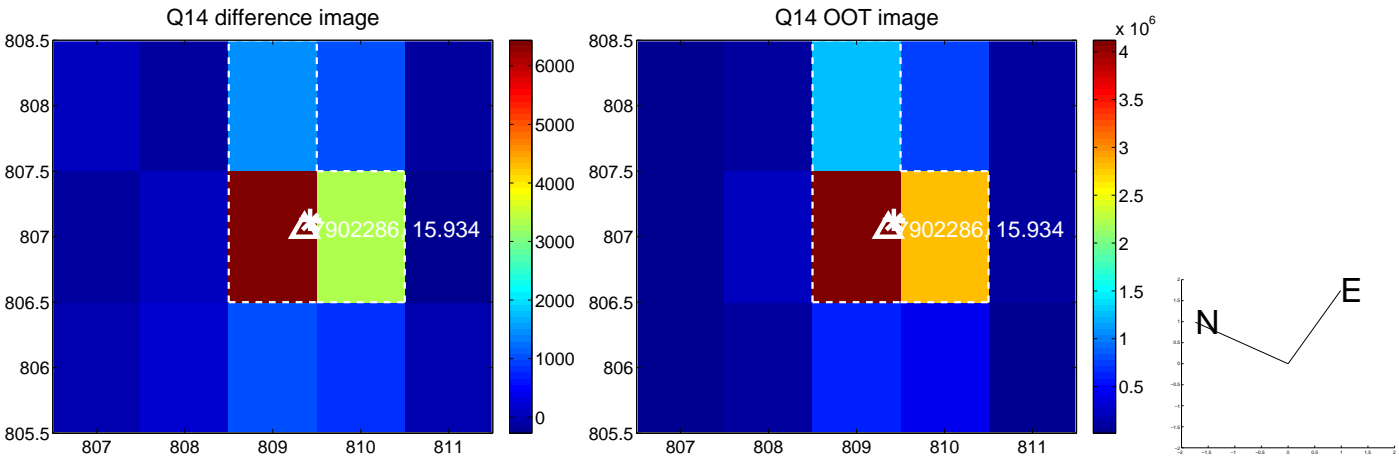
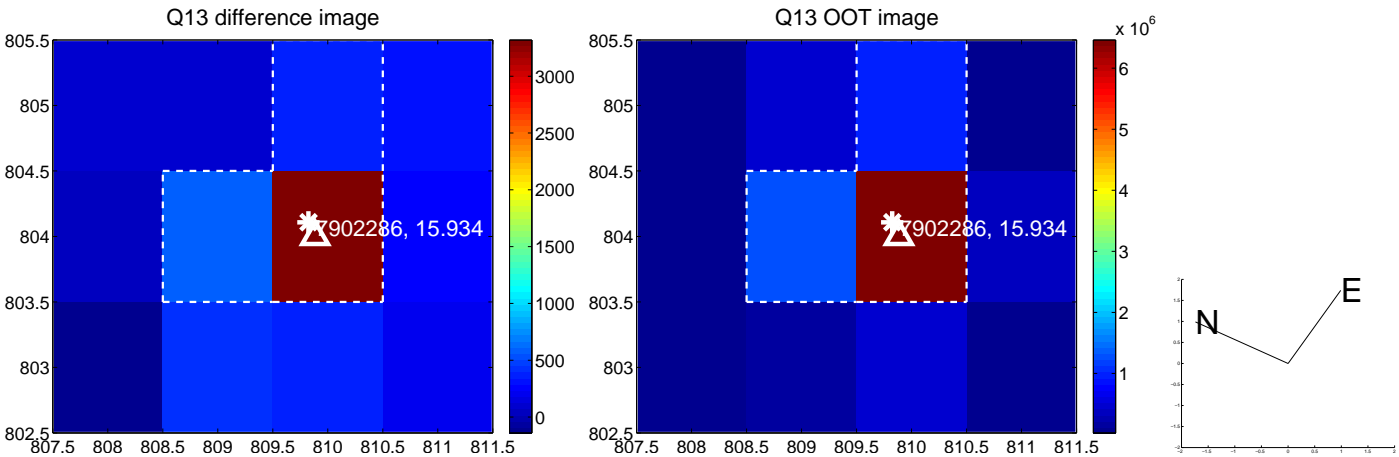
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



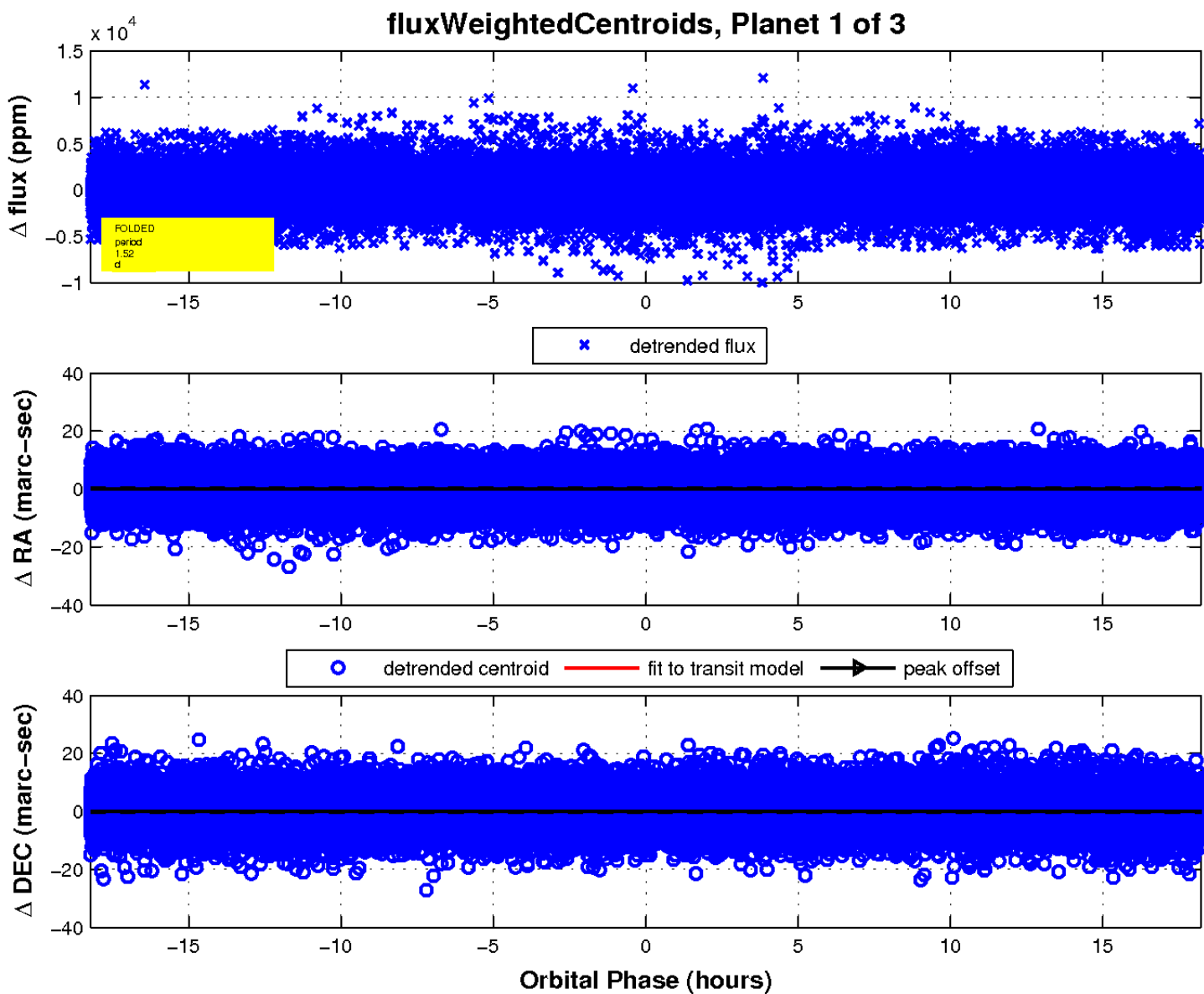
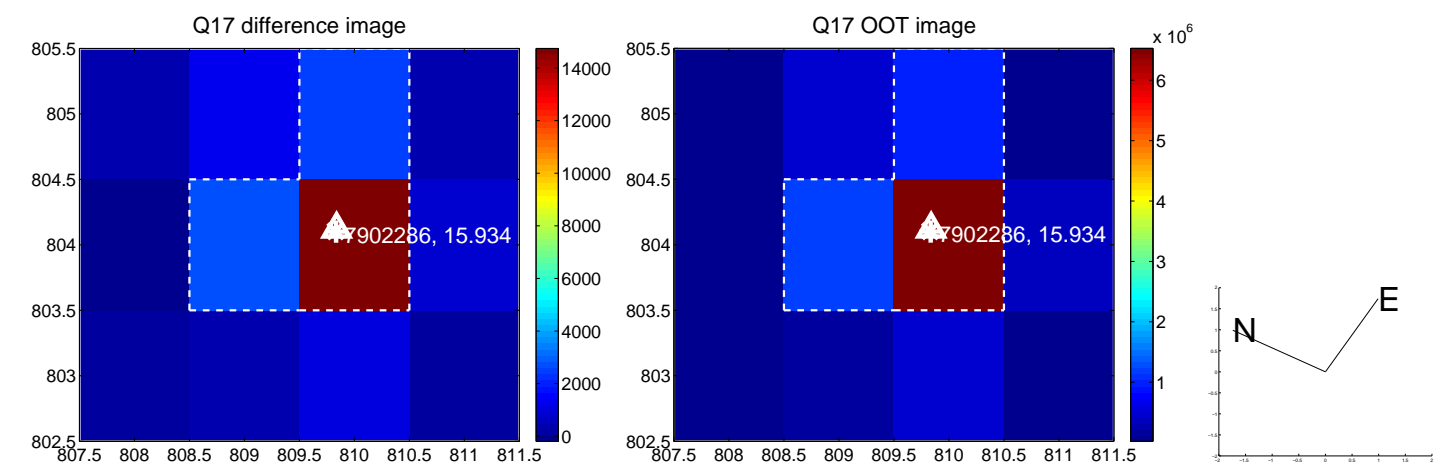
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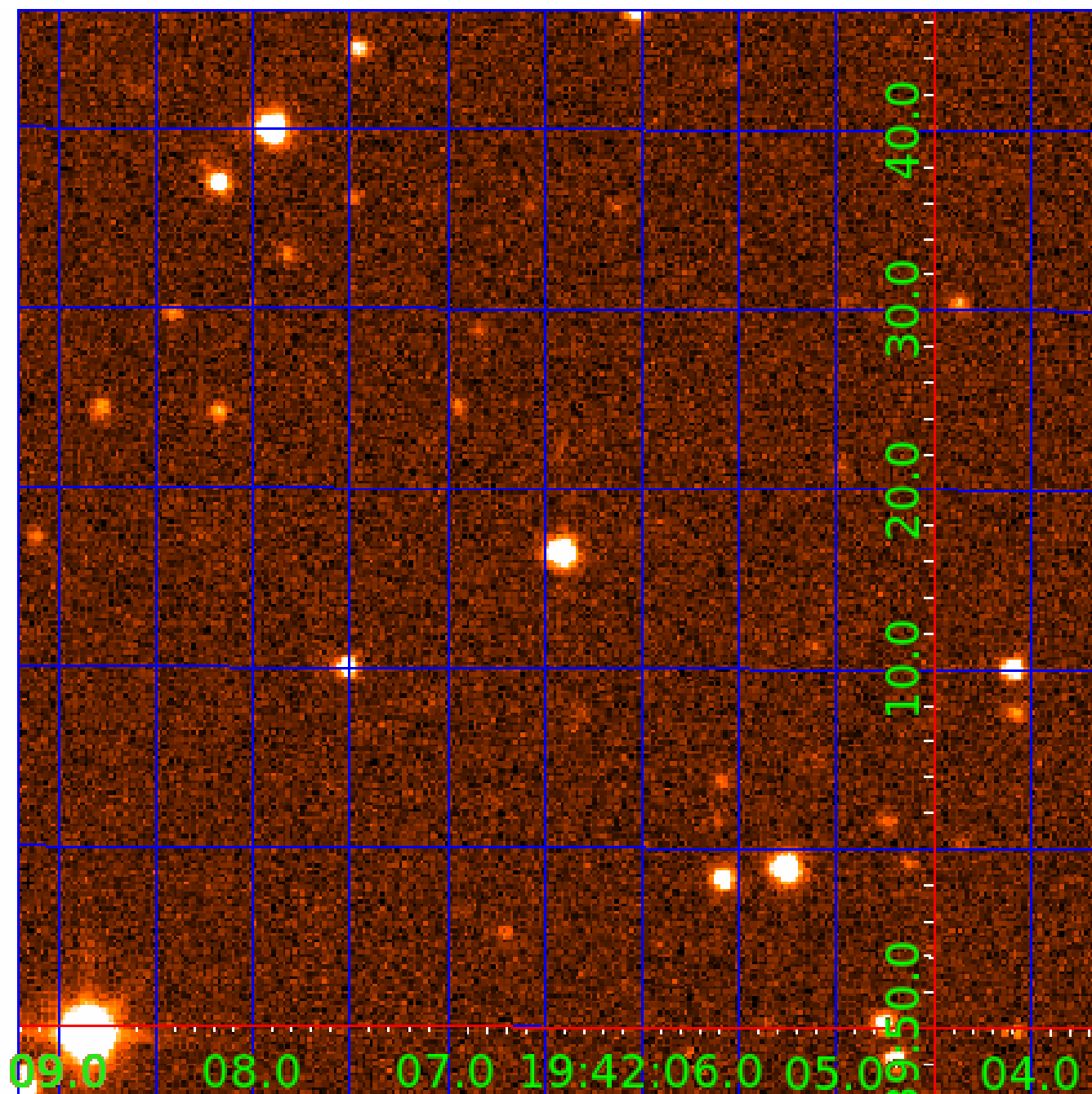


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007902286

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})
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007902286-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
007902286-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

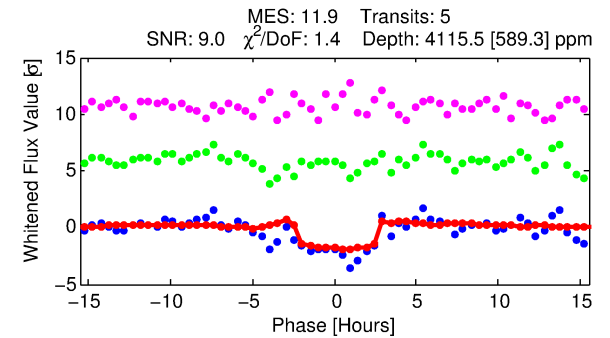
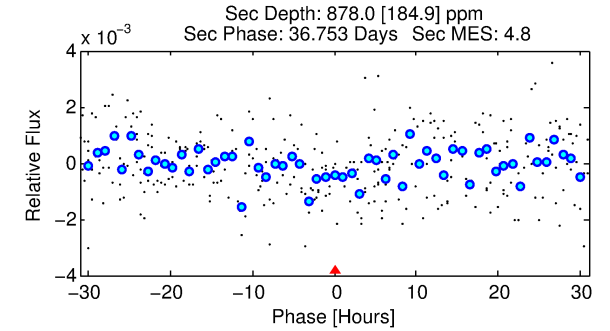
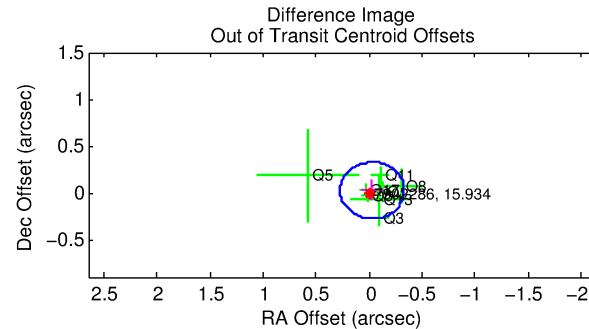
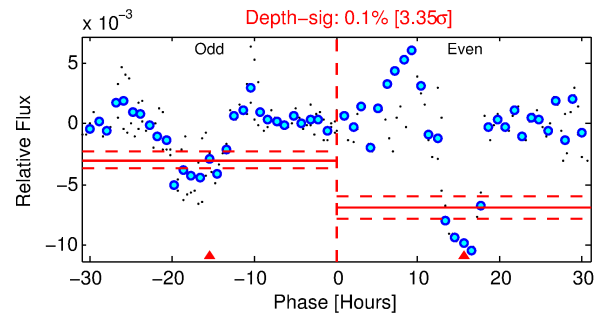
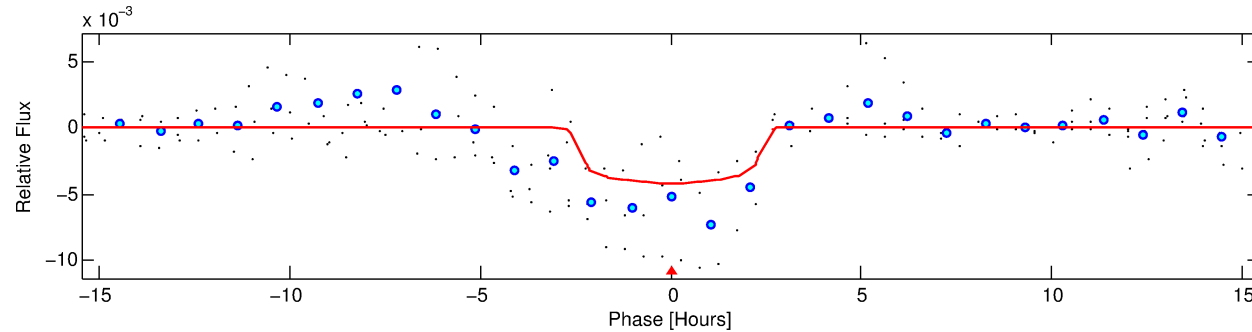
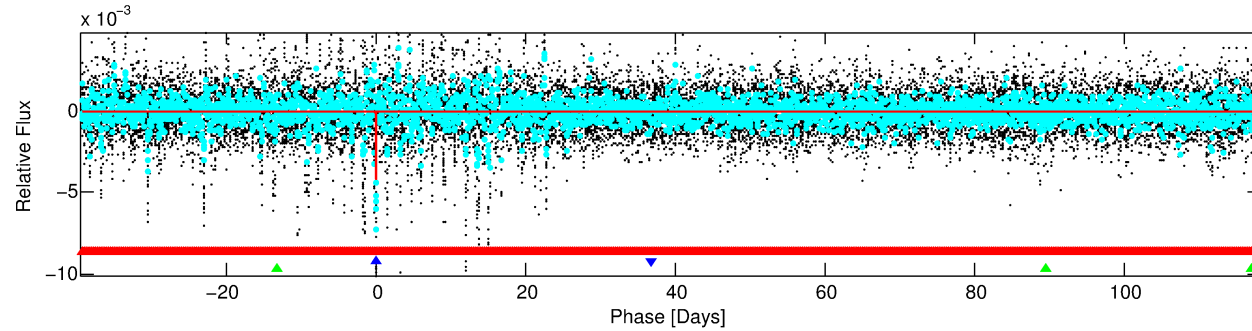
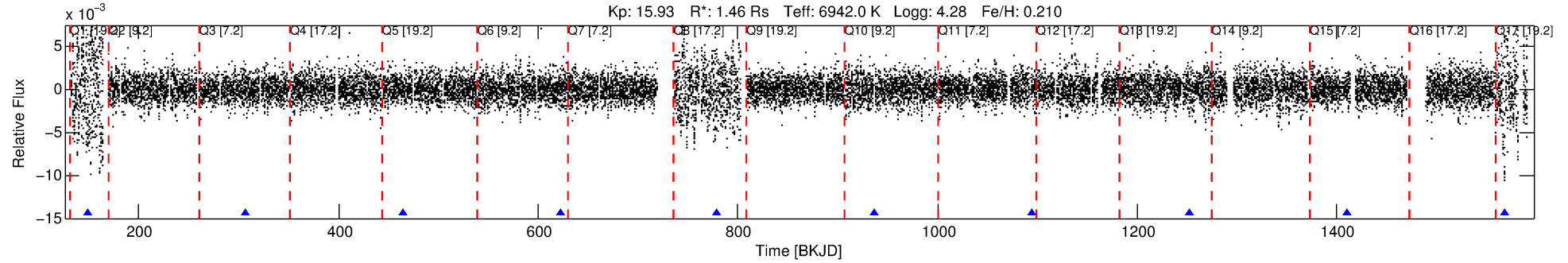
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007902286-02

No Significant Match Found

DV One-Page Summary

KIC: 7902286 Candidate: 2 of 3 Period: 157.624 d



DV Fit Results:

Period = 157.62436 [0.00143] d
Epoch = 148.9321 [0.0081] BKJD
Rp/R* = 0.0593 [0.0180]
a/R* = 247.30 [384.41]
b = 0.00 [325.95]
Seff = 10.40 [4.31]
Teff = 458 [47] K
Rp = 9.44 [3.91] Re
a = 0.6521 [0.1540] AU
Ag = 2304.05 [1681.45] [1.37 σ]
Teffp = 4905 [839] K [5.29 σ]

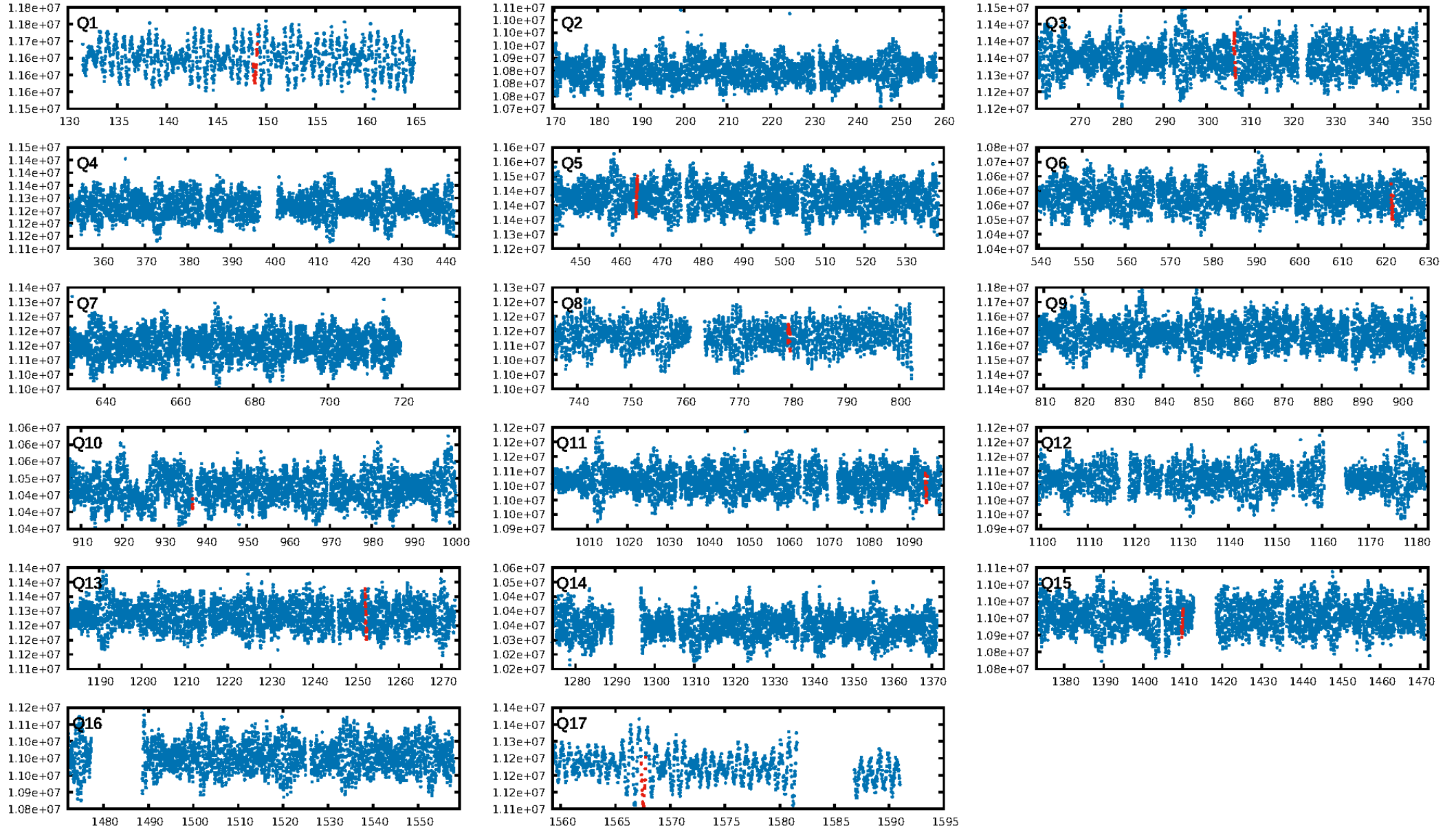
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [391.08 σ]
LongPeriod-sig: 100.0% [190.86 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 9.40e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.05815
Centroid-sig: 12.5%
Centroid-so: 0.430 arcsec [1.62 σ]
OotOffset-rm: 0.037 arcsec [0.37 σ]
OotOffset-st: 1/2/1/4 [8]
KicOffset-rm: 0.022 arcsec [0.21 σ]
KicOffset-st: 1/2/1/4 [8]
DiffImageQuality-fgm: 0.62 [5/8]
DiffImageOverlap-fno: 0.12 [1/8]

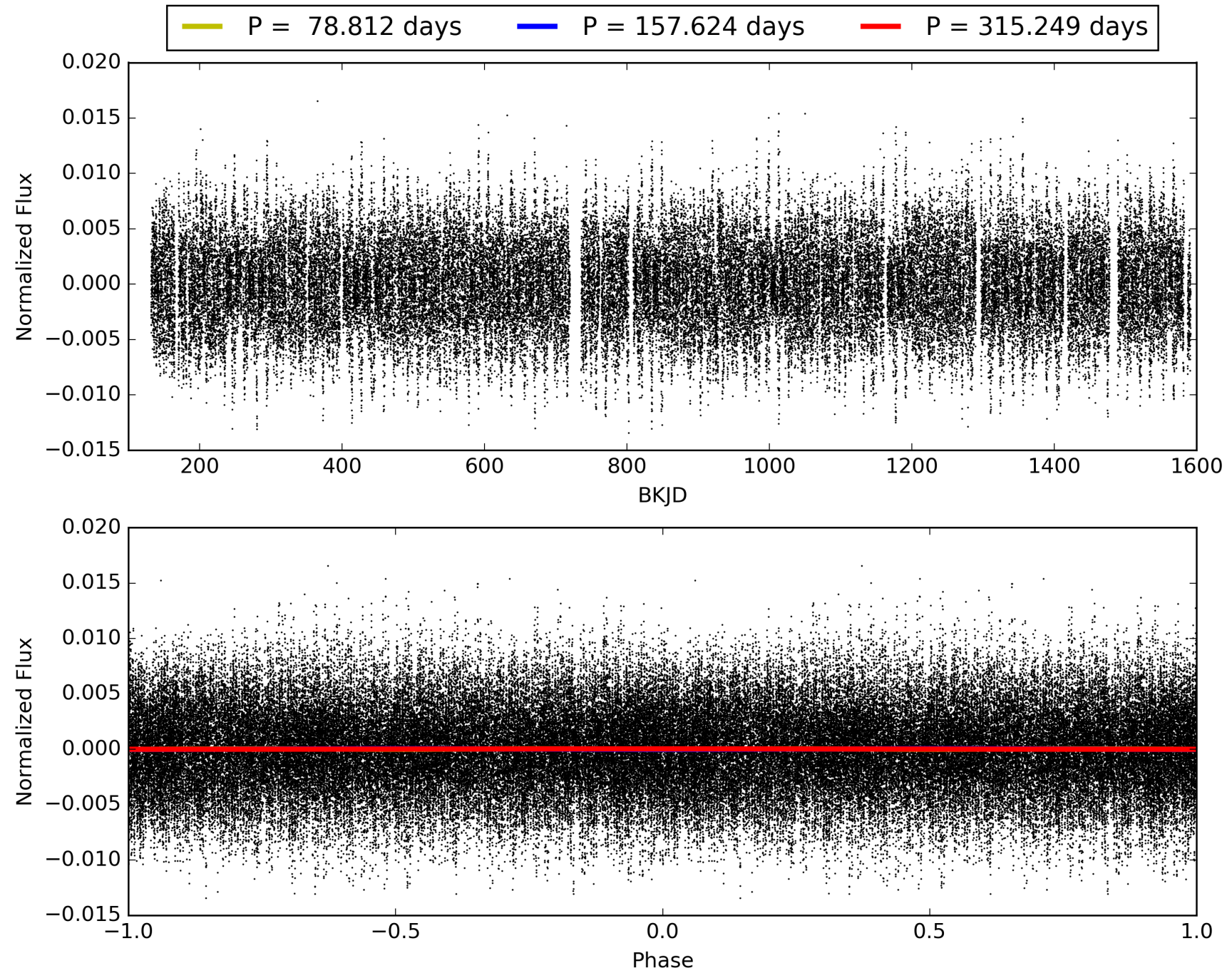
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:51:47 Z

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

TCE 007902286-02, PDC Light Curves

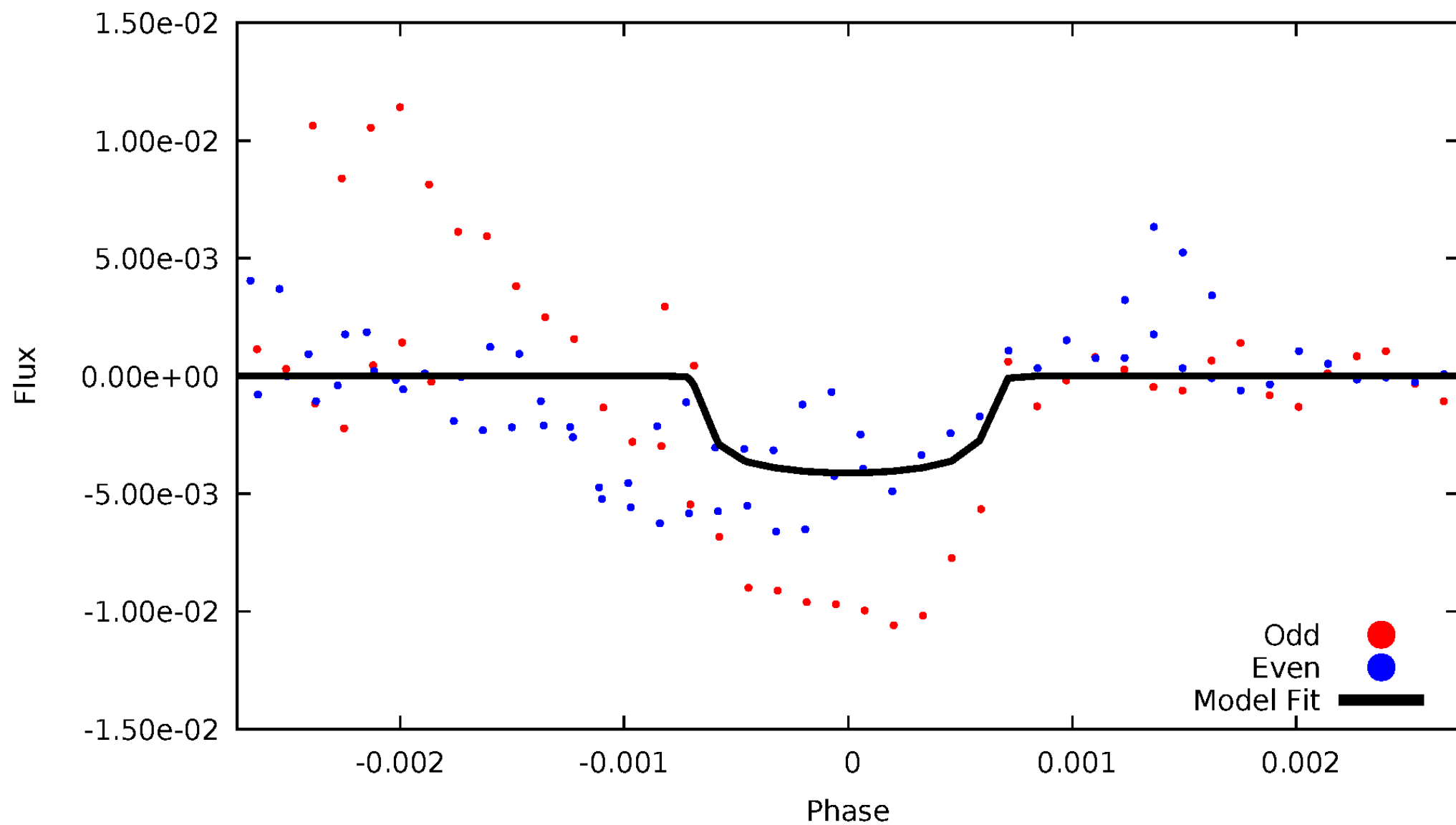


TCE 007902286-02



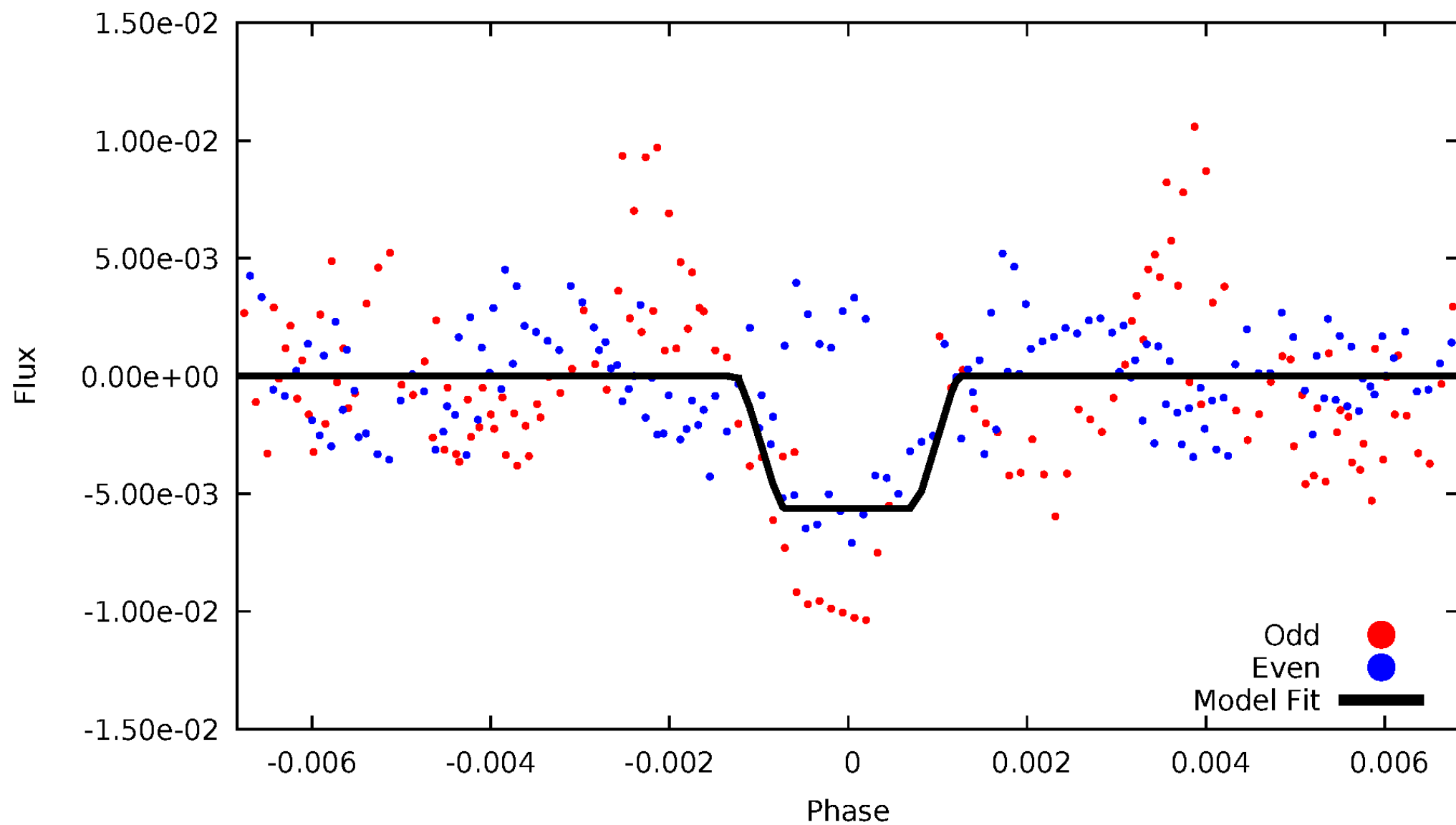
DV Odd/Even

TCE 007902286-02



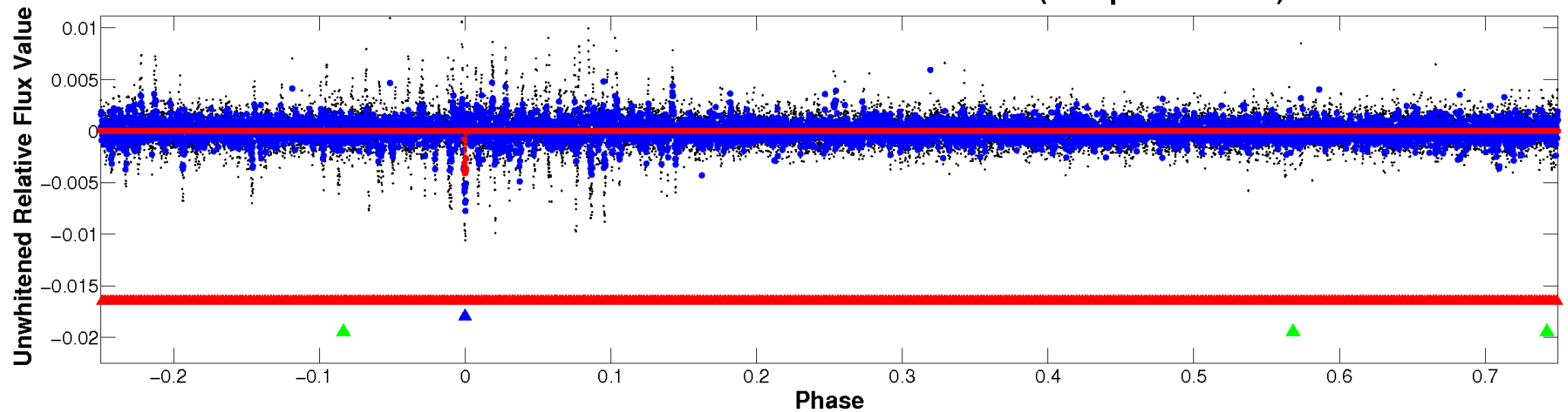
ALT Odd/Even

TCE 007902286-02

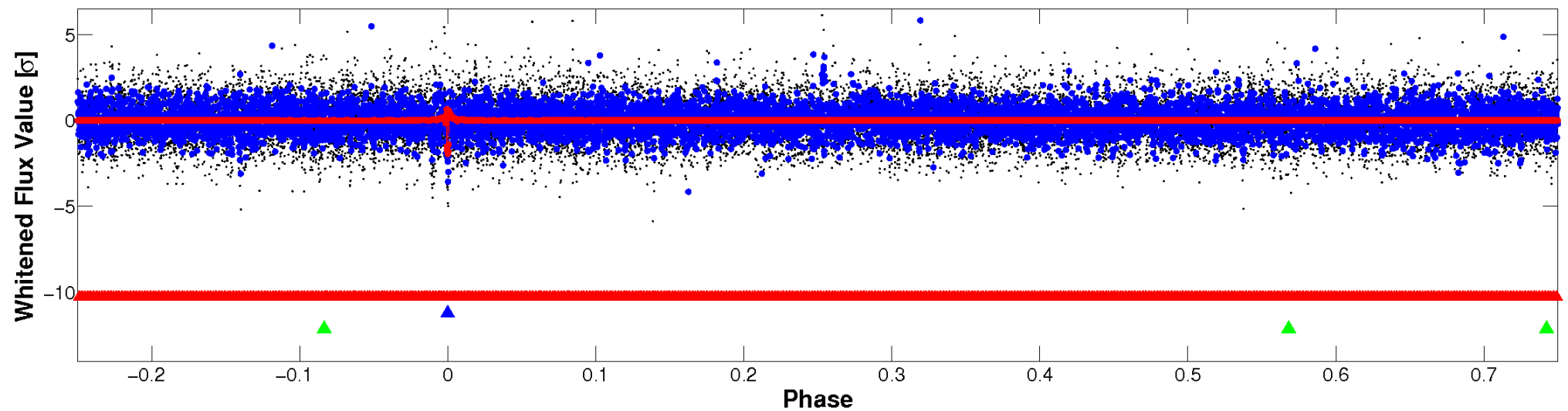


Non-Whitened Vs. Whitened Light Curve

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

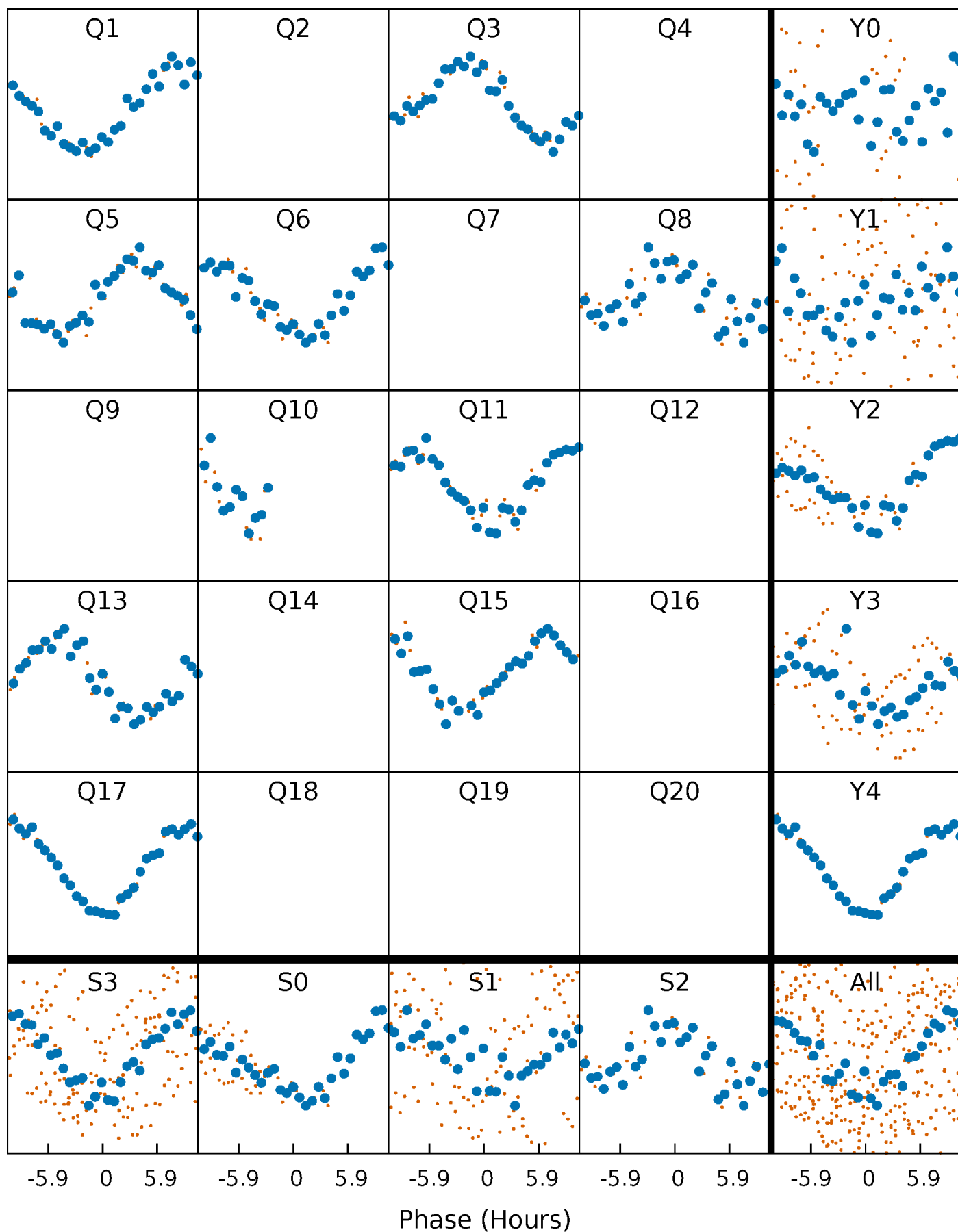


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



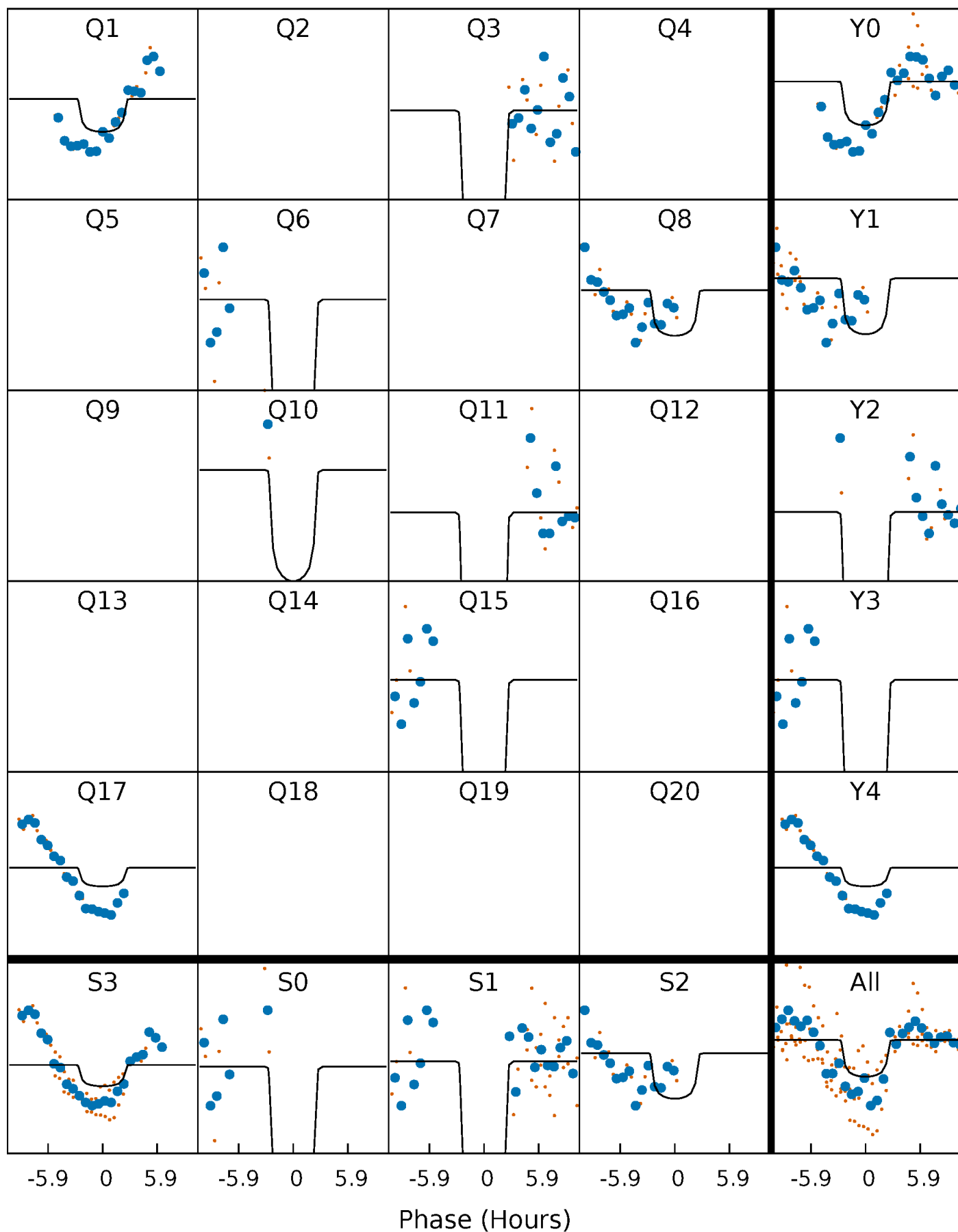
PDC Quarter-Phased Transit Curves

TCE 007902286-02 P=157.624357 Days $T_0=148.932113$ (BKJD)



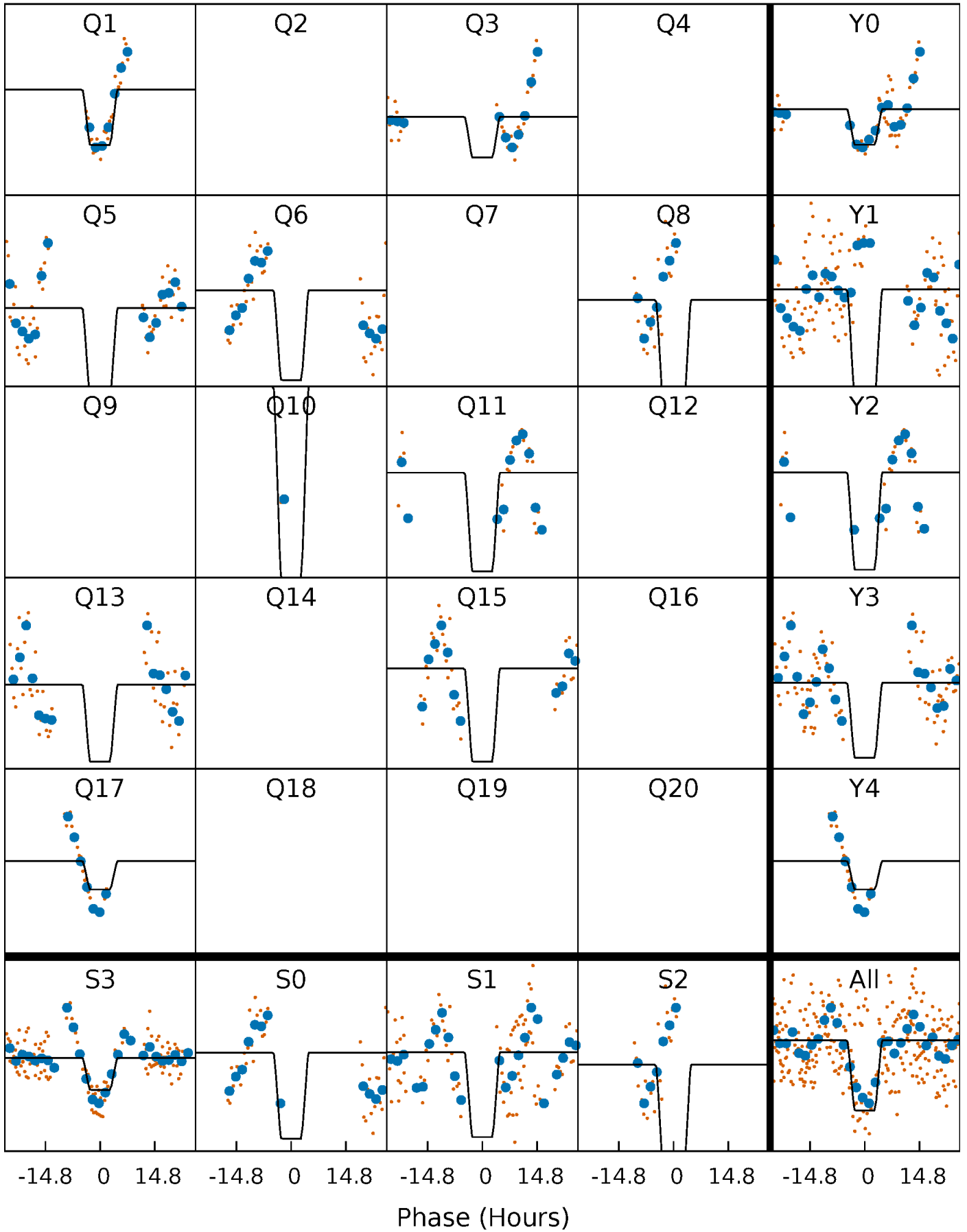
DV Quarter-Phased Transit Curves

TCE 007902286-02 P=157.624357 Days $T_0=148.932113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

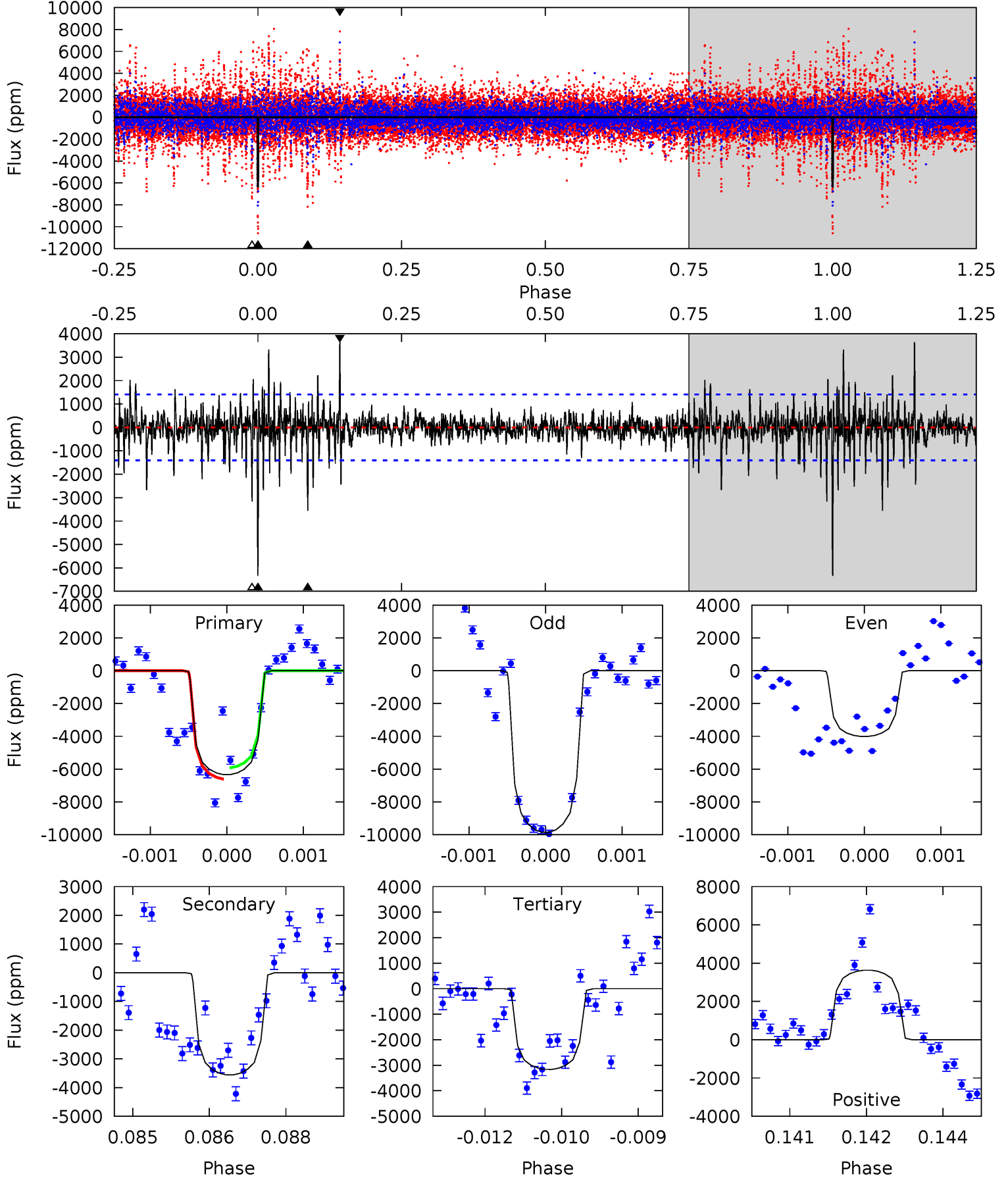
TCE 007902286-02 P=157.633089 Days $T_0=148.874913$ (BKJD)



DV Model-Shift Uniqueness Test

007902286-02, P = 157.624357 Days, E = 148.932113 Days

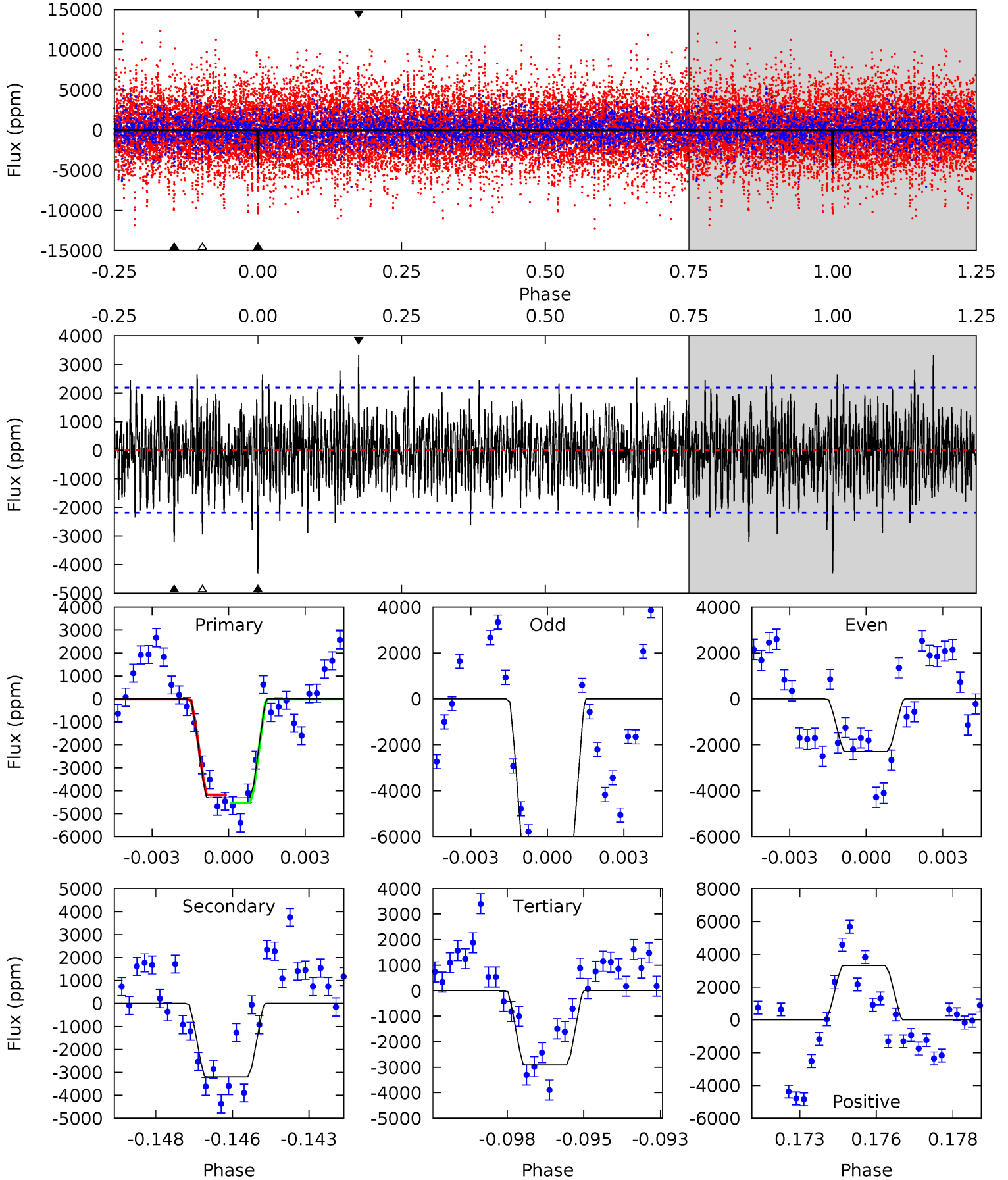
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	13.6	12.1	13.9	5.39	3.19	1.97	12.1	10.3	1.51	-0.30	10.8	1.15	0.36	1.27



Alt Model-Shift Uniqueness Test

007902286-02, P = 157.633089 Days, E = 148.874913 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	7.71	7.02	7.98	5.29	3.02	2.20	3.38	2.43	0.69	-0.27	6.41	0.71	0.43	0.41



Stellar Parameters For KIC 007902286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6942^{+216}_{-401}	$4.283^{+0.062}_{-0.188}$	$0.210^{+0.150}_{-0.350}$	$1.458^{+0.409}_{-0.220}$	$1.488^{+0.166}_{-0.222}$	$0.675^{+0.258}_{-0.319}$
	+3%/-6%	+1%/-4%	+71%/-167%	+28%/-15%	+11%/-15%	+38%/-47%
Source	PHO1	KIC0	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 007902286-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3557 ± 261	$9.86^{+3.34}_{-3.18}$	650^{+49}_{-44}	6866^{+1752}_{-909}	8486^{+9279}_{-3832}
Alt.	-3192 ± 414	$12.53^{+3.72}_{-3.38}$	650^{+46}_{-42}	5953^{+940}_{-688}	4687^{+3795}_{-1850}

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 $A_{obs} \gg 1.0$

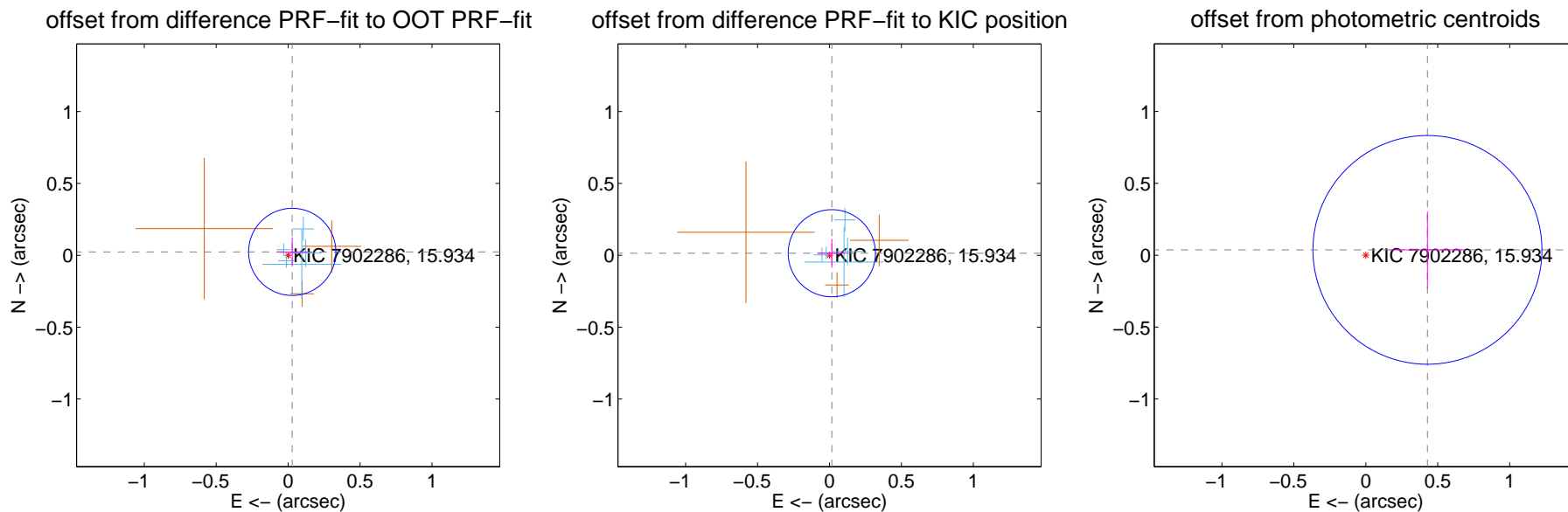
DV Centroid Data

Supplemental centroid analysis for 007902286-02. Kepler magnitude: 15.93. Transit SNR 8.97

There are 5 quarters with good PRF difference image offsets

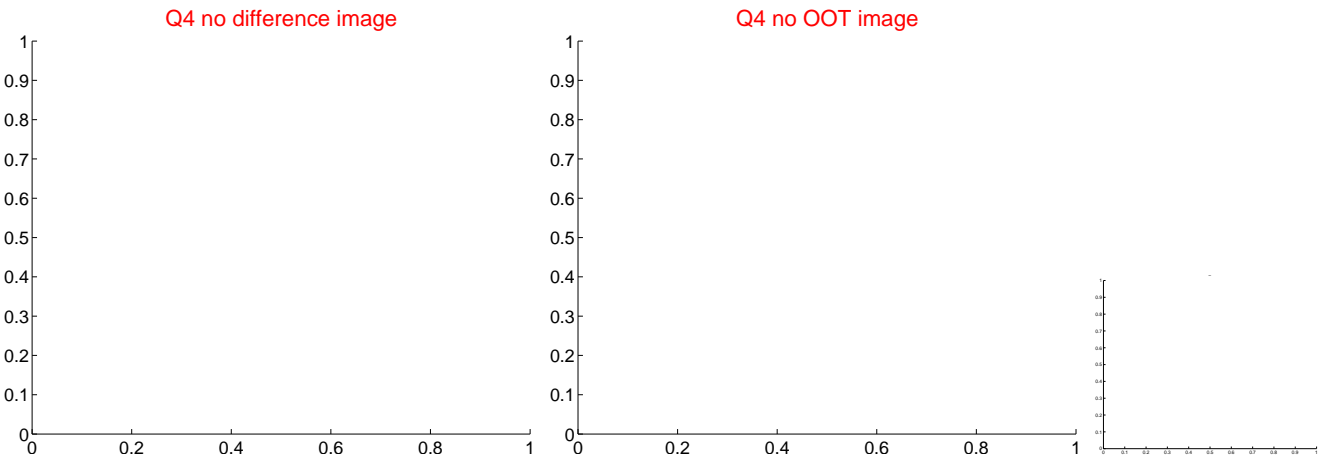
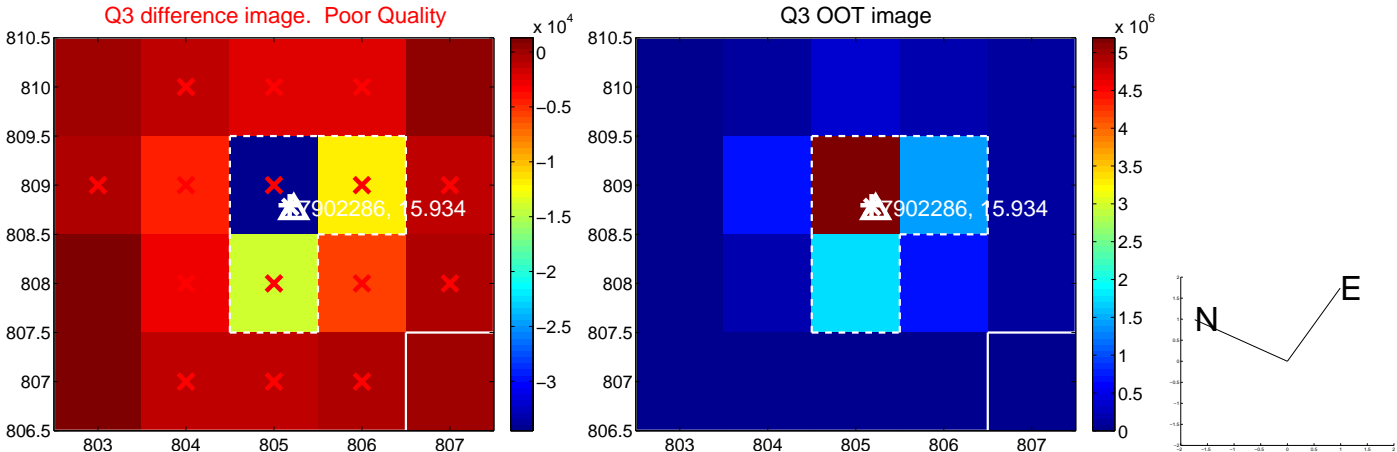
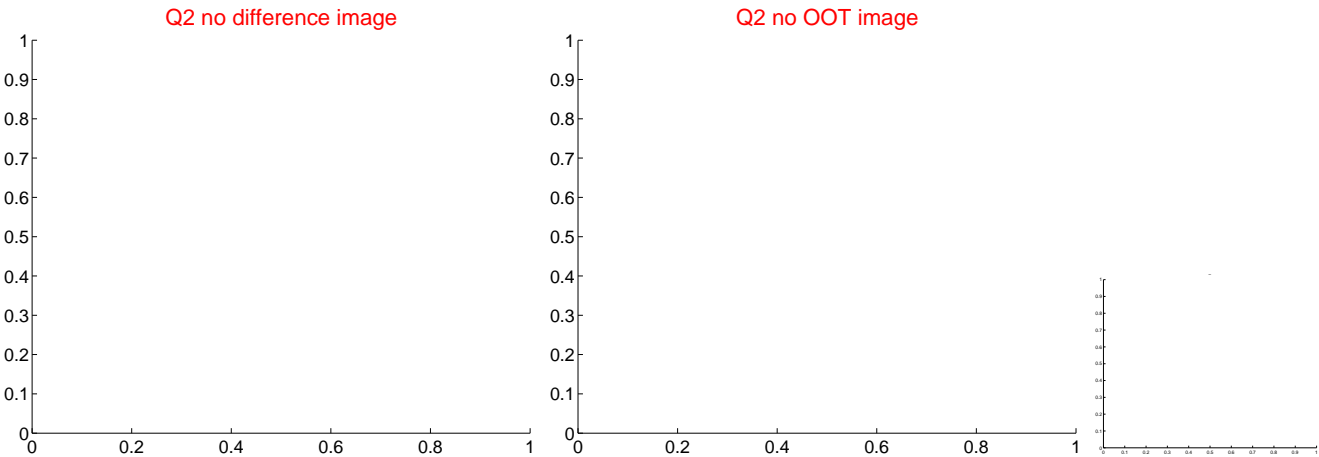
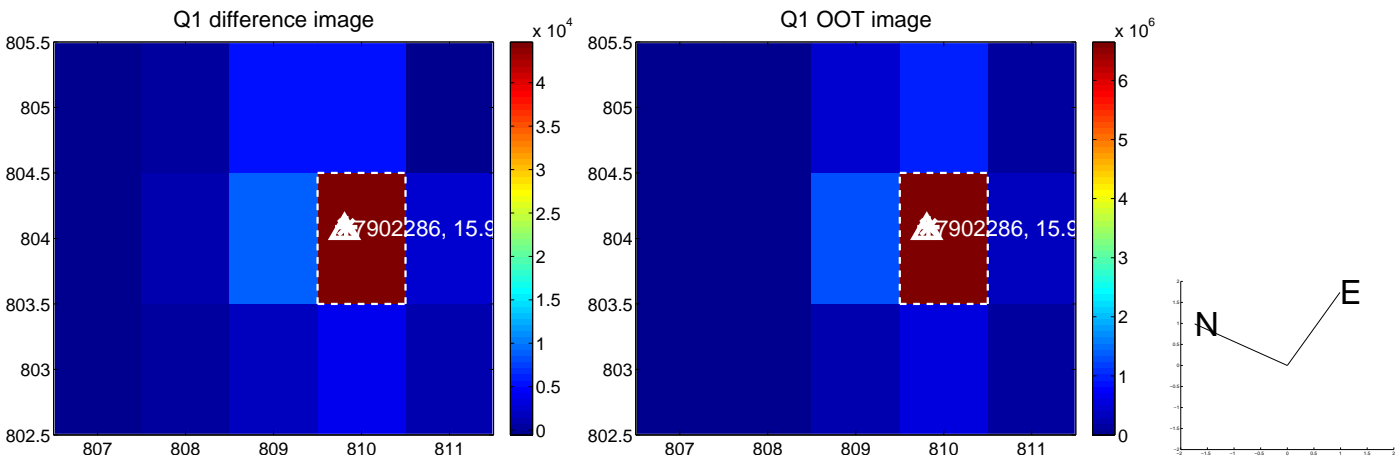
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.101	0.37	-0.028 ± 0.101	0.024 ± 0.101
PRF-fit source offset from KIC position	0.022 ± 0.101	0.21	-0.016 ± 0.101	0.014 ± 0.101
photometric centroid source offset	0.43 ± 0.27	1.62	-0.43 ± 0.27	0.04 ± 0.27

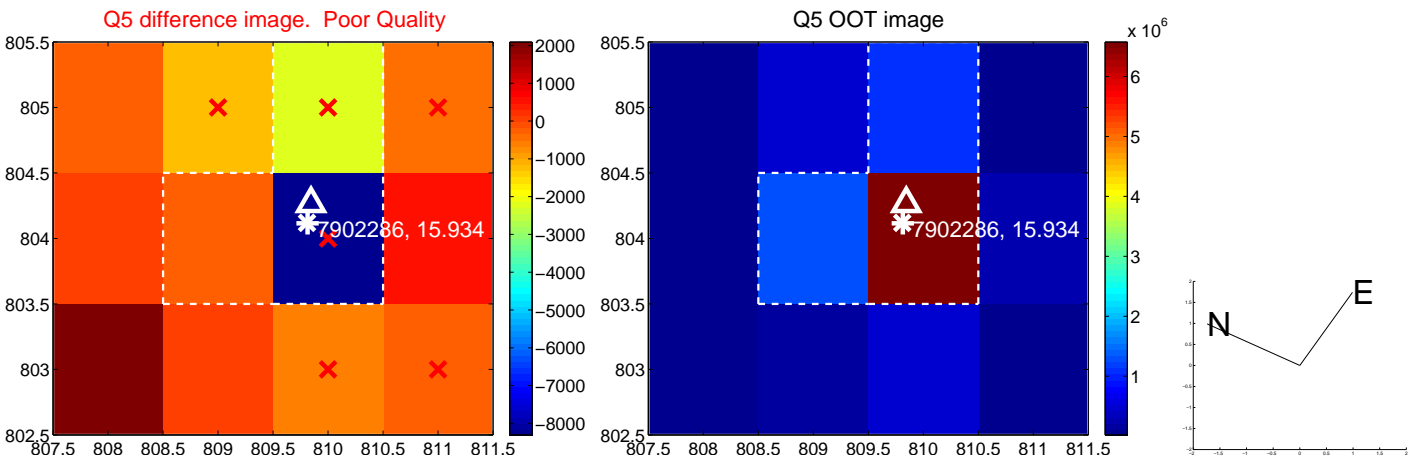


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

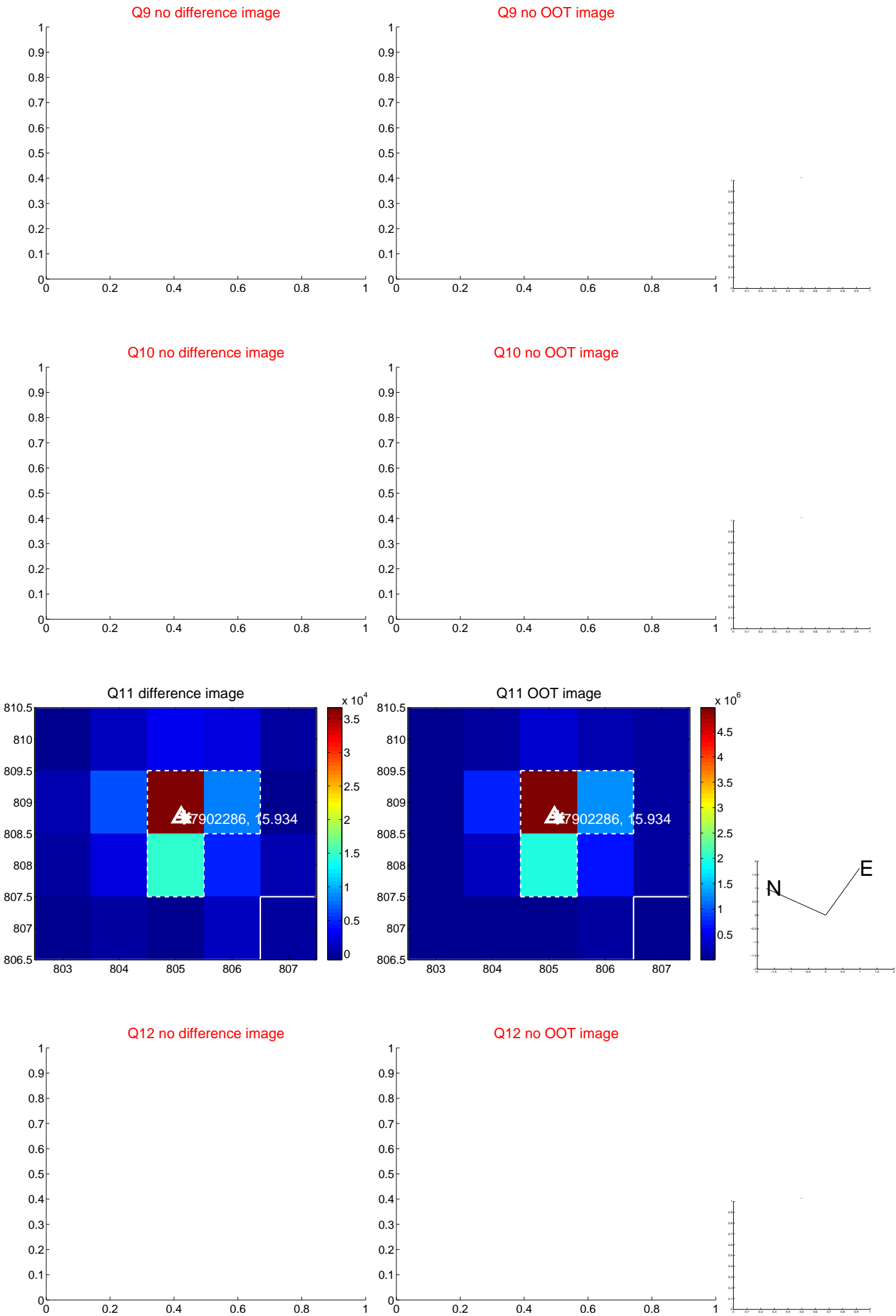
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



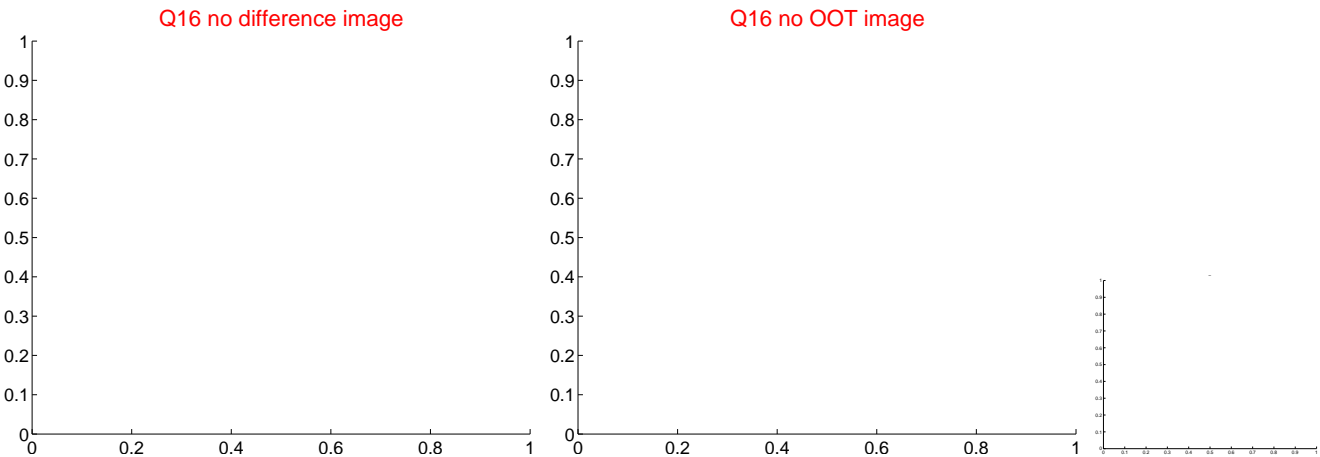
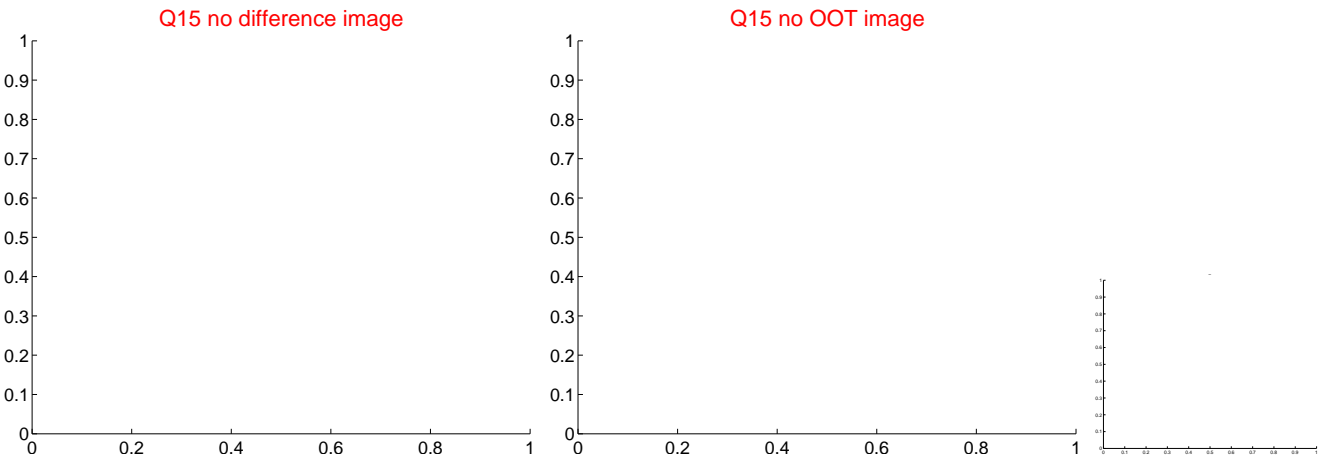
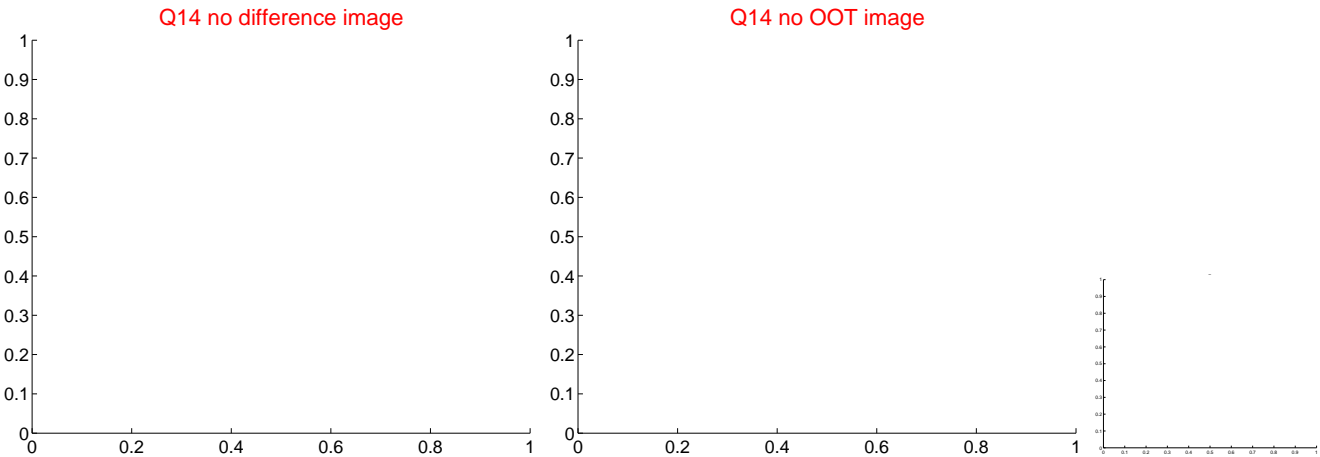
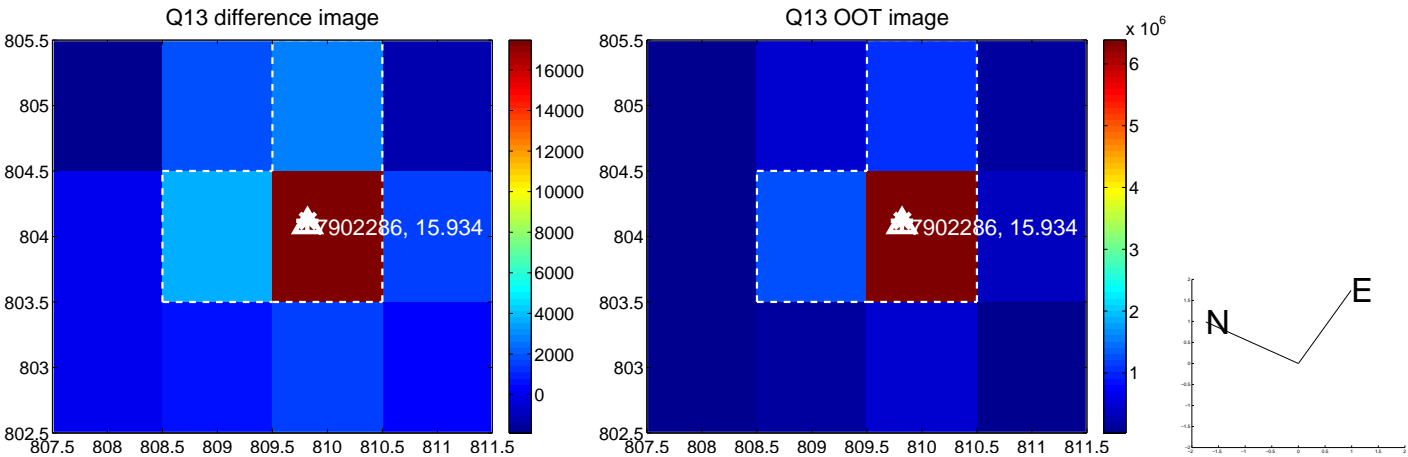
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



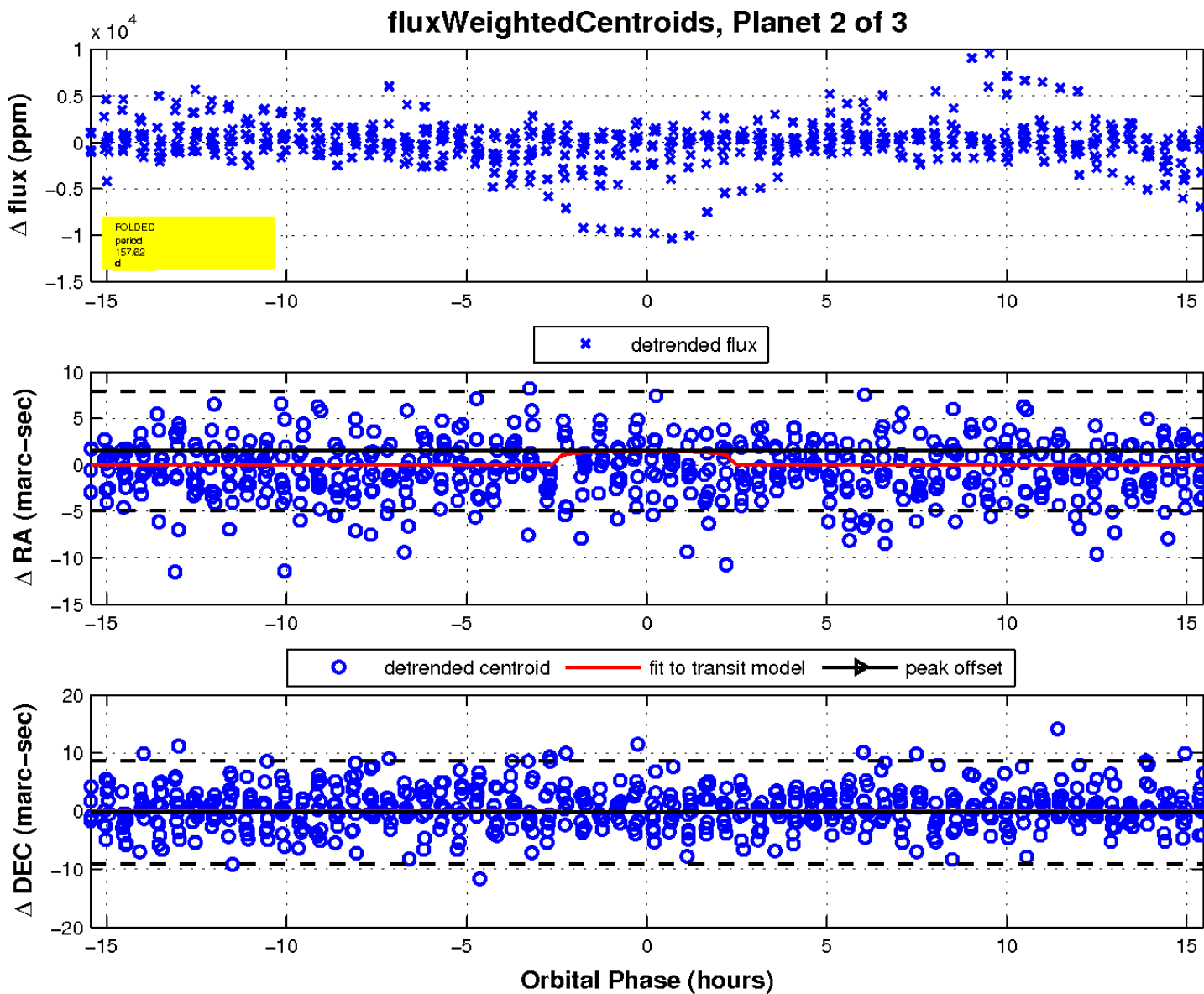
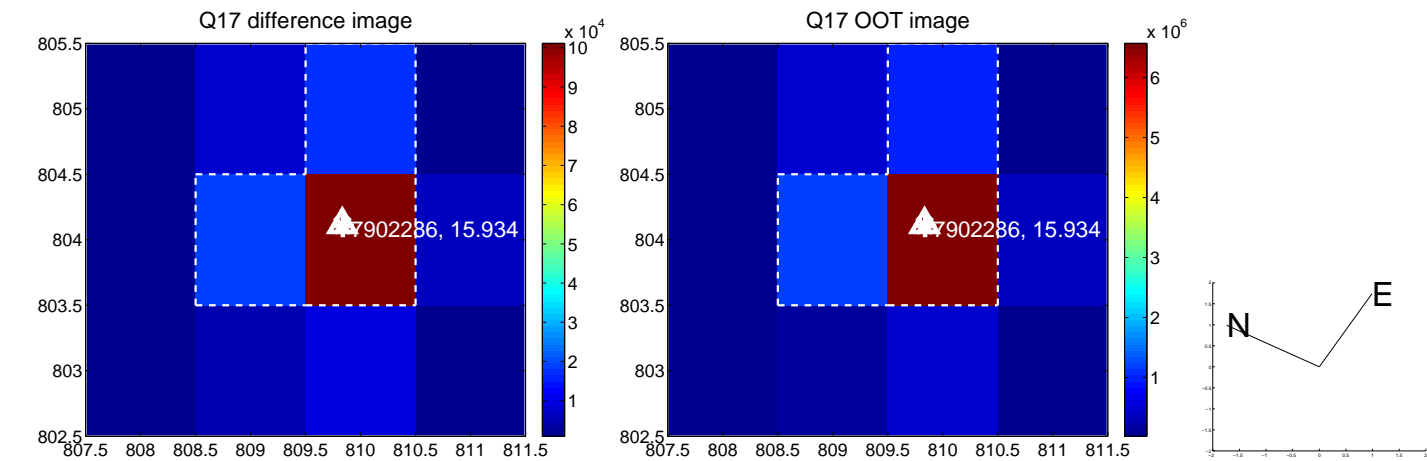
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

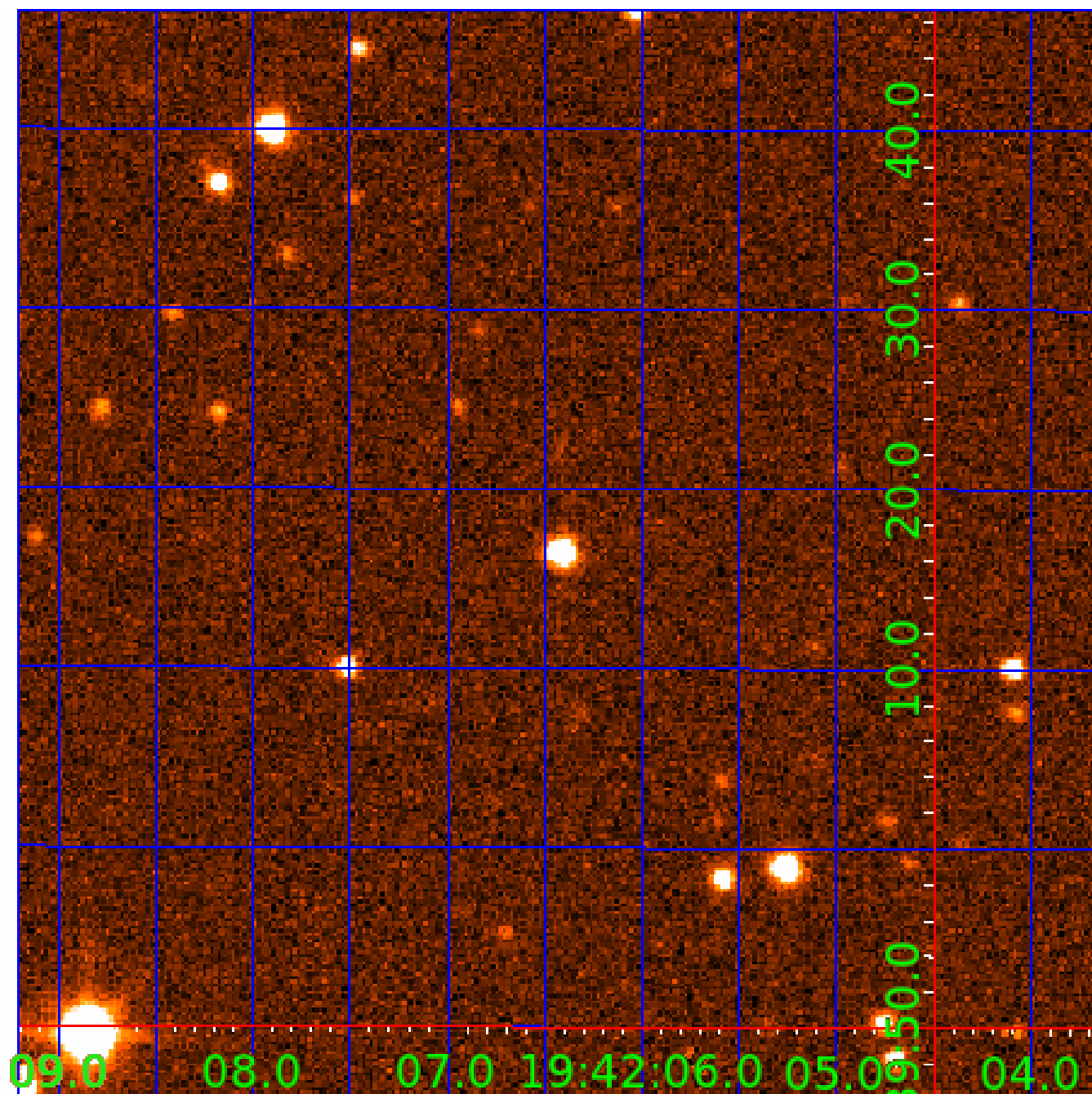


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007902286

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})
007902286-01	OBS	No	1.518683	133.013004	107.9	8.073	7.6	8.6	1.46	6942	1.67	5074.36
007902286-02	OBS	No	157.624356	148.932113	4115.5	5.158	11.9	9.0	1.46	6942	9.44	10.40
007902286-03	OBS	No	603.039651	135.779857	3600.4	55.772	10.6	8.7	1.46	6942	9.22	1.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007902286-01	OBS	FP	0.00	1	0	0	0	LPP_DV
007902286-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—HALO_GHOST
007902286-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

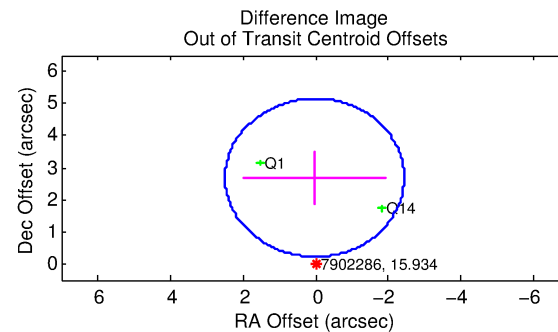
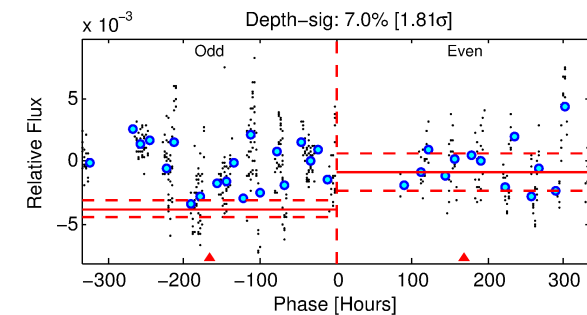
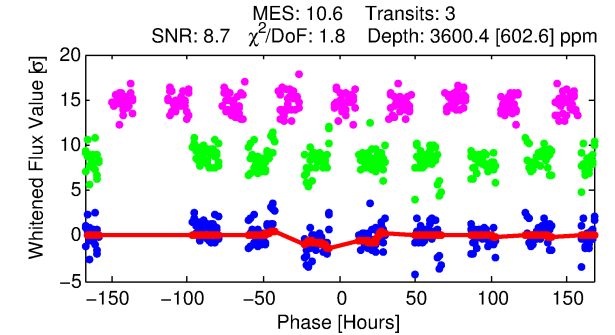
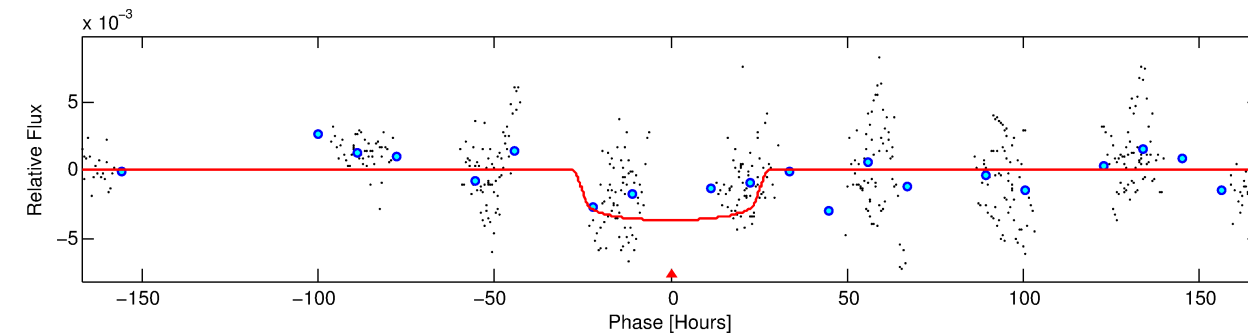
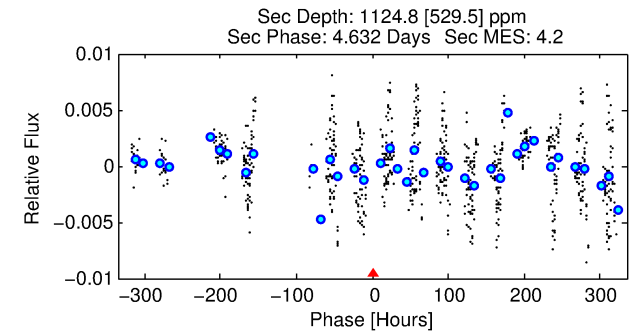
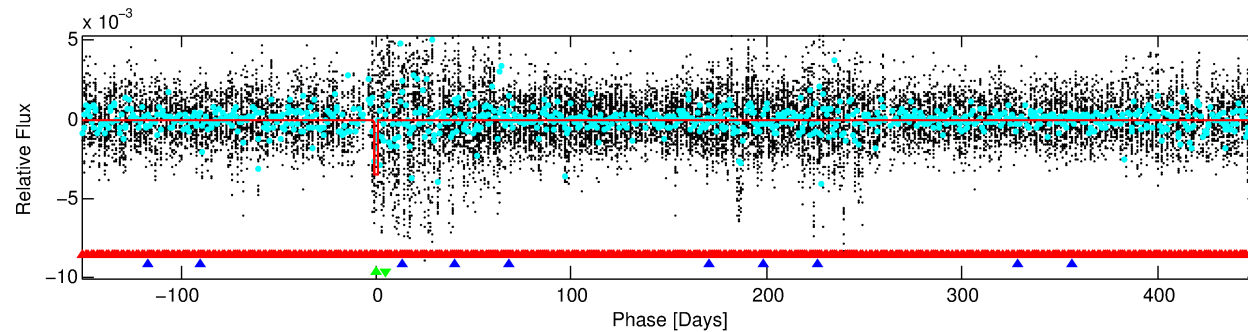
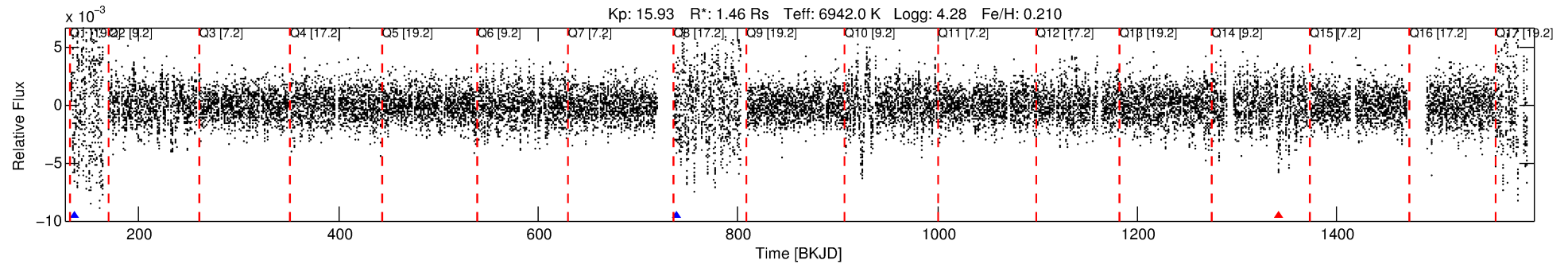
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007902286-03

No Significant Match Found

DV One-Page Summary

KIC: 7902286 Candidate: 3 of 3 Period: 603.040 d



DV Fit Results:

Period = 603.03965 [0.05573] d
Epoch = 135.7799 [0.1274] BKJD
Rp/R* = 0.0579 [0.0061]
a/R* = 70.82 [25.82]
b = 0.62 [0.34]
Seff = 1.74 [0.72]
Teq = 293 [30] K
Rp = 9.22 [2.76] Re
a = 1.5950 [0.3768] AU
Ag = 18536.32 [11496.58] [1.61σ]
Teffp = 5282 [747] K [6.68σ]

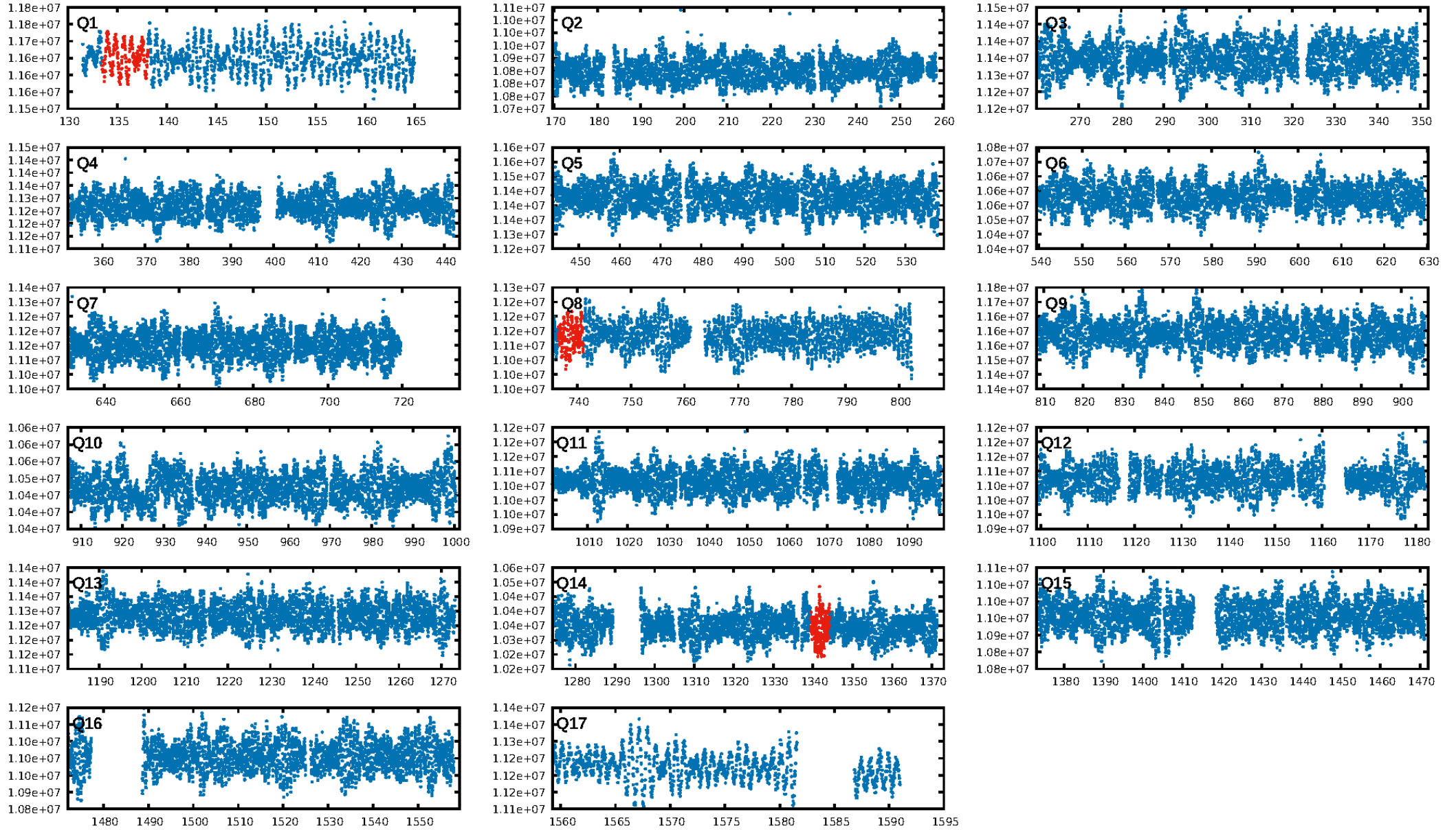
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [190.86σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.08e-10
RollingBand-fgt: 0.50 [1/2]
GhostDiagnostic-chr: -0.4285
Centroid-sig: 9.8%
Centroid-so: 0.456 arcsec [1.22σ]
OotOffset-rm: 2.686 arcsec [3.27σ]
KicOffset-rm: 2.704 arcsec [3.65σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

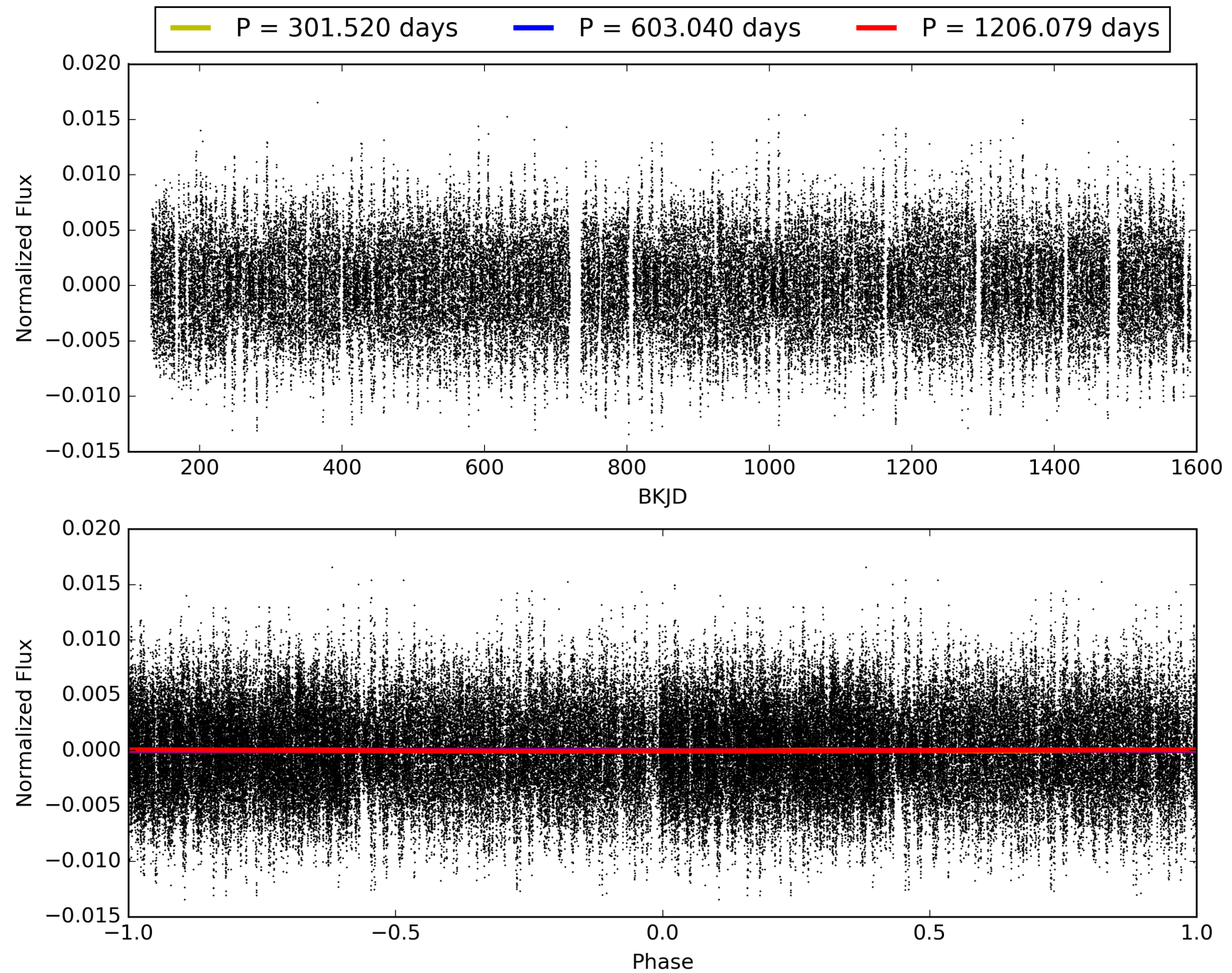
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:51:53 Z

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

TCE 007902286-03, PDC Light Curves

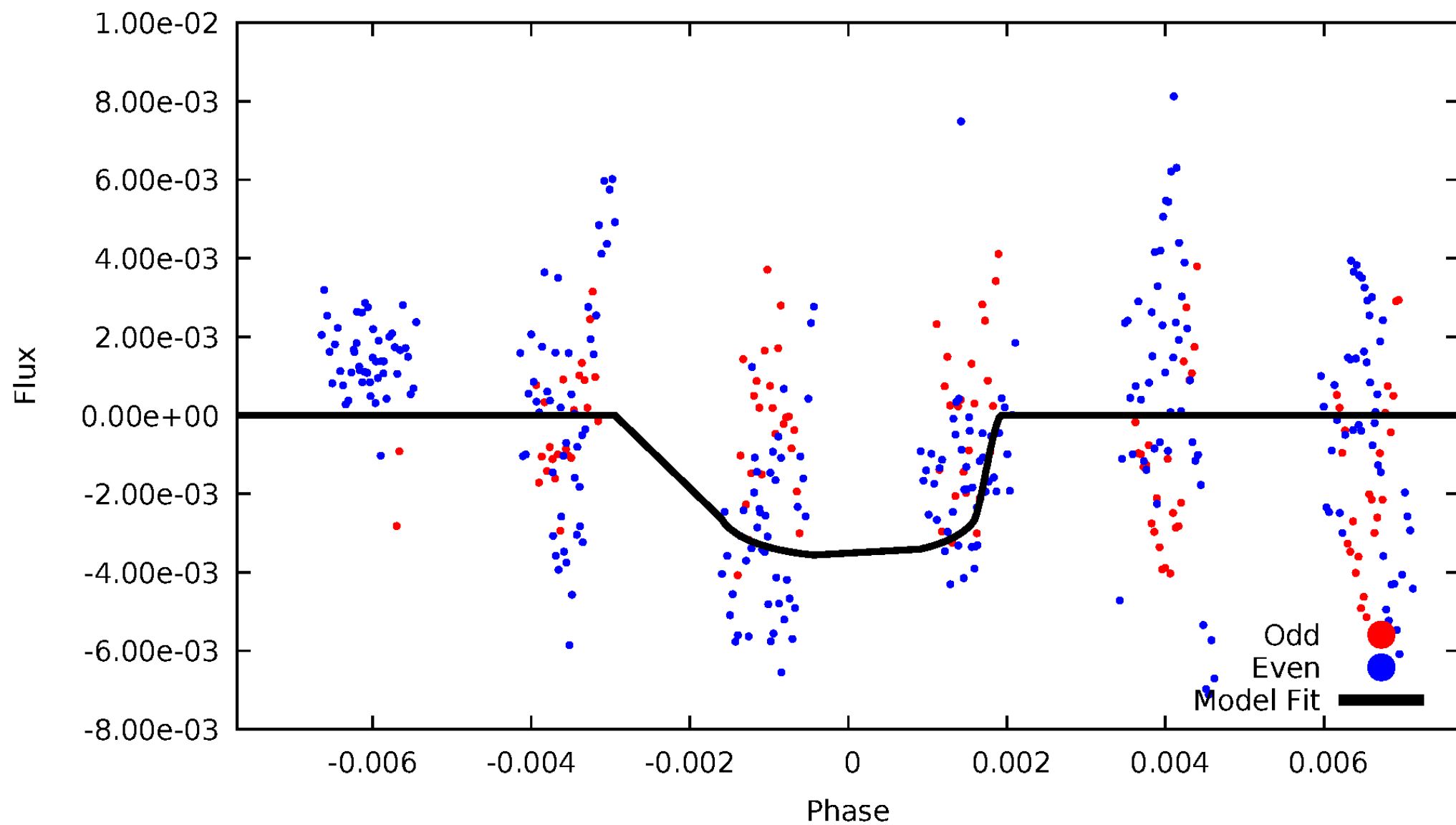


TCE 007902286-03



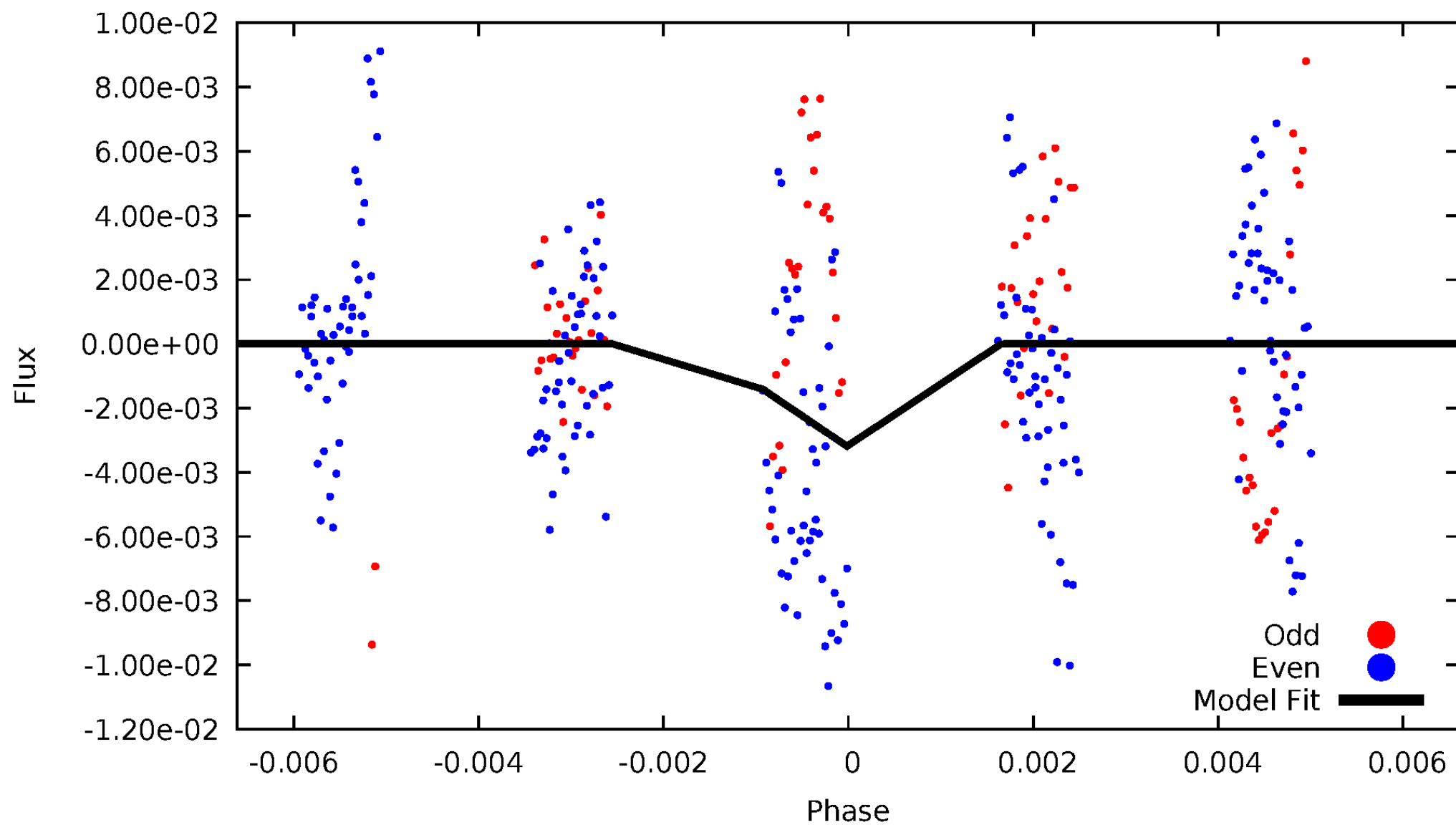
DV Odd/Even

TCE 007902286-03



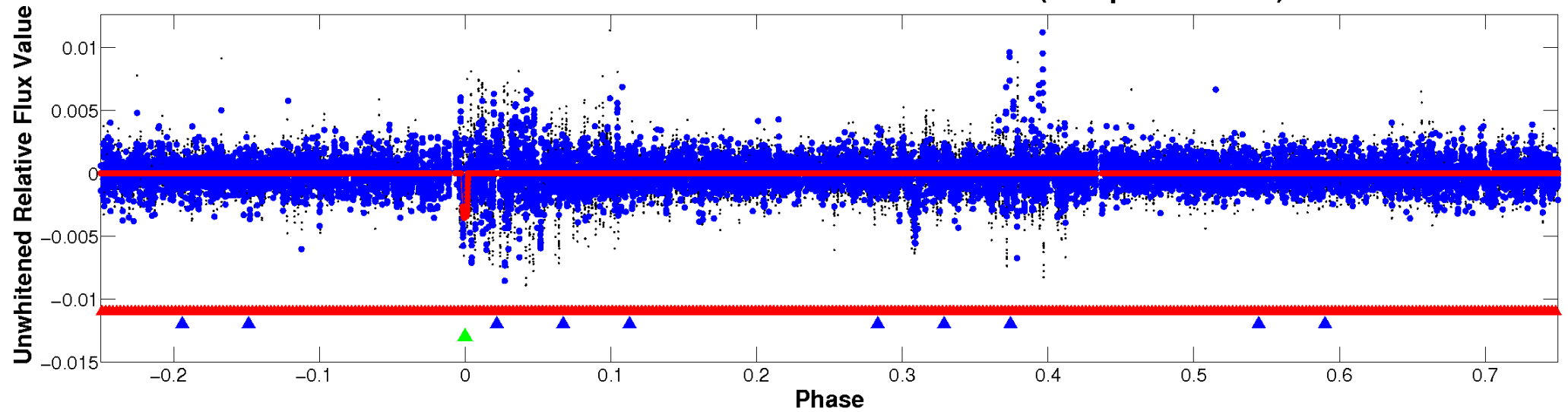
ALT Odd/Even

TCE 007902286-03

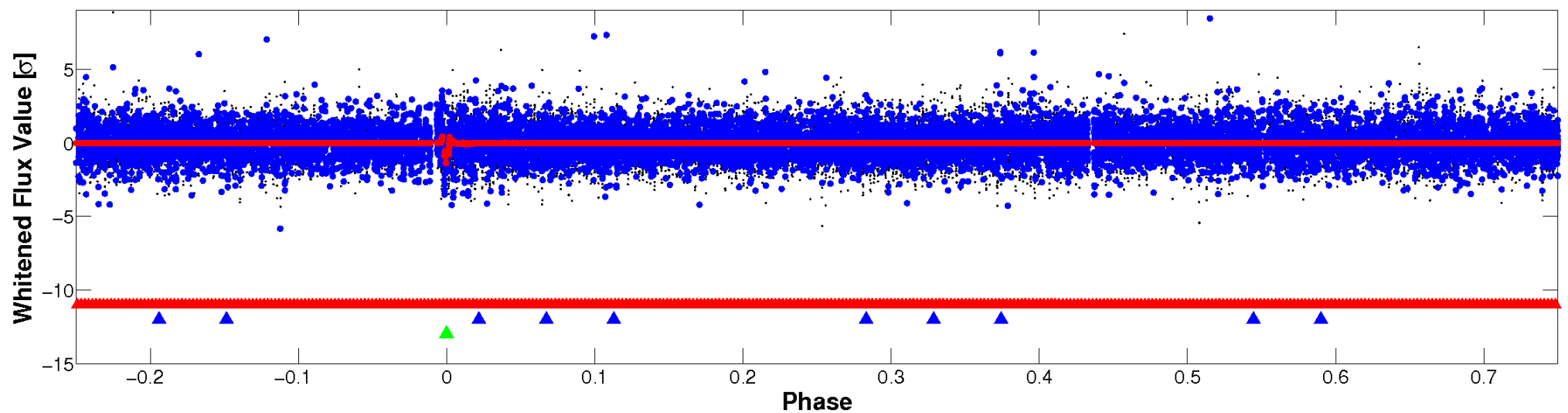


Non-Whitened Vs. Whitened Light Curve

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

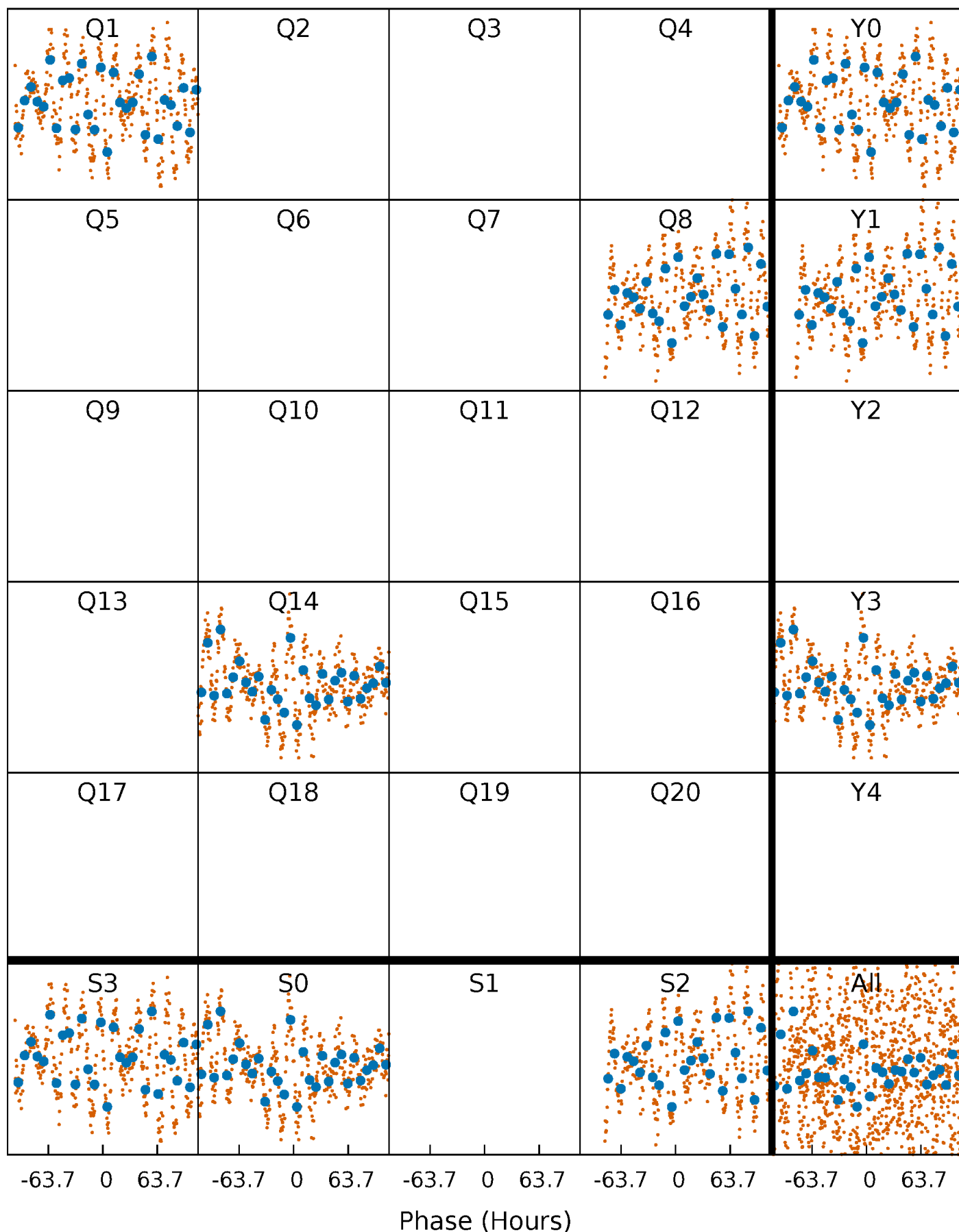


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



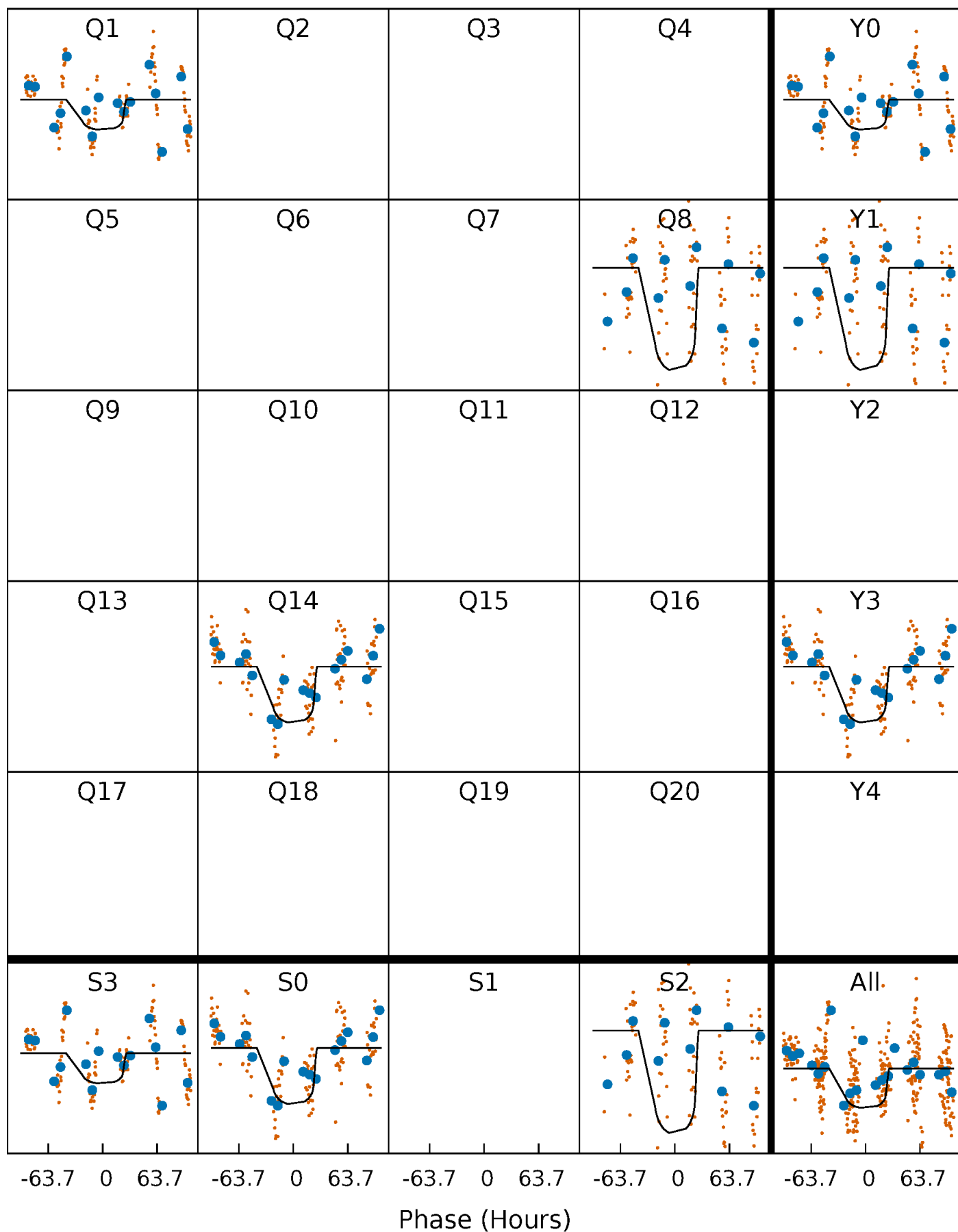
PDC Quarter-Phased Transit Curves

TCE 007902286-03 P=603.039651 Days $T_0=135.779857$ (BKJD)



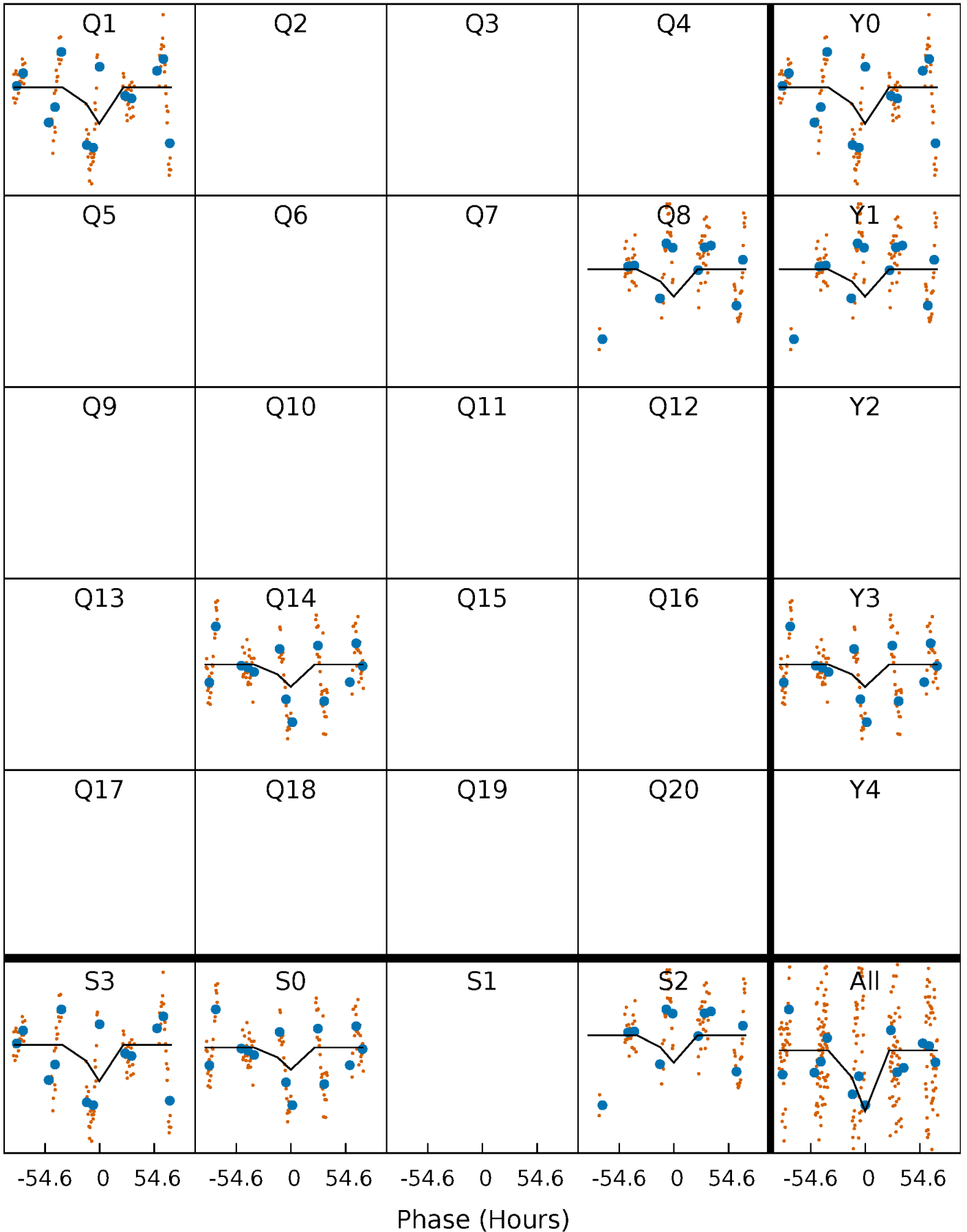
DV Quarter-Phased Transit Curves

TCE 007902286-03 P=603.039651 Days $T_0=135.779857$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

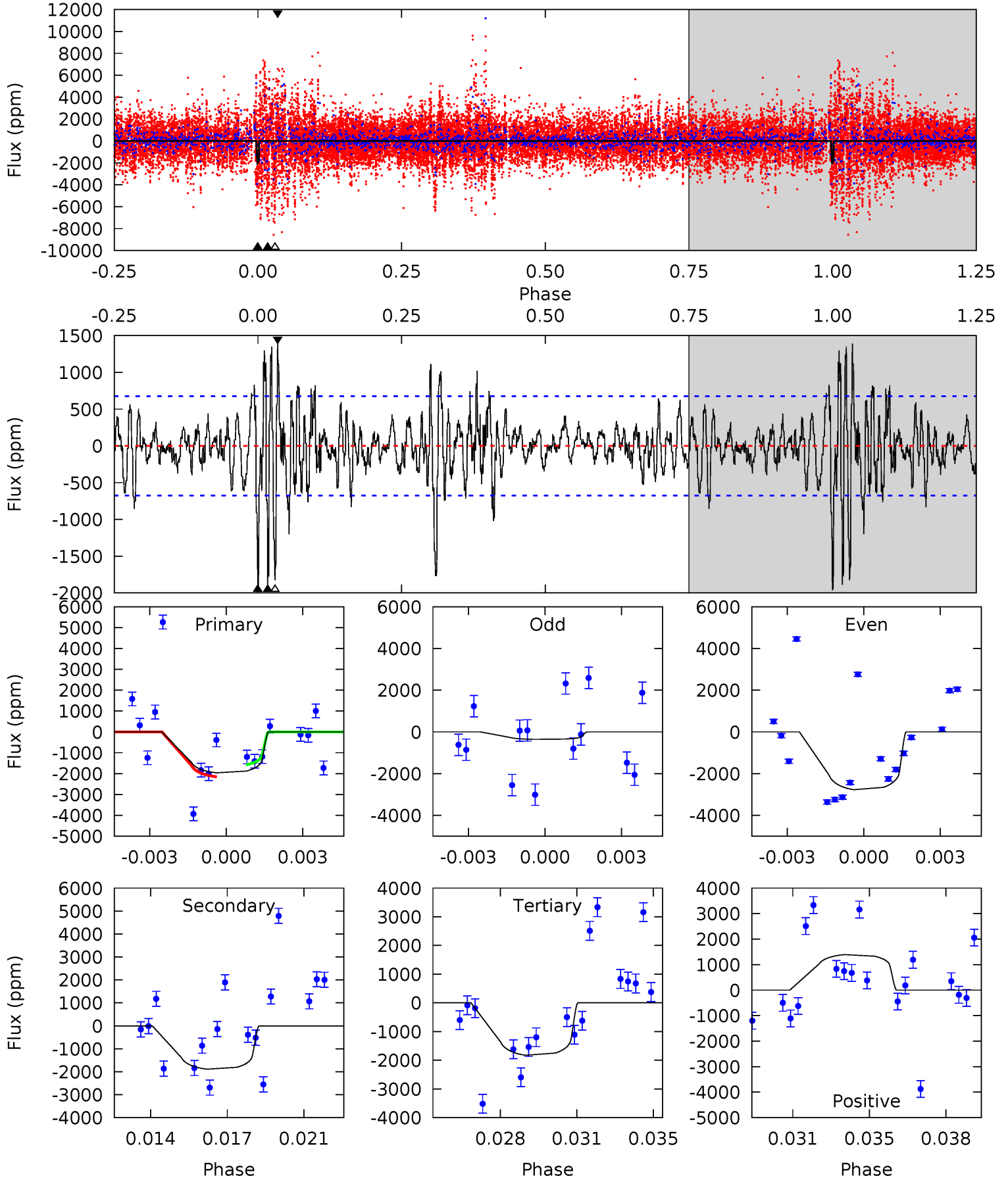
TCE 007902286-03 $P=602.885377$ Days $T_0=135.604192$ (BKJD)



DV Model-Shift Uniqueness Test

007902286-03, P = 603.039651 Days, E = 135.779857 Days

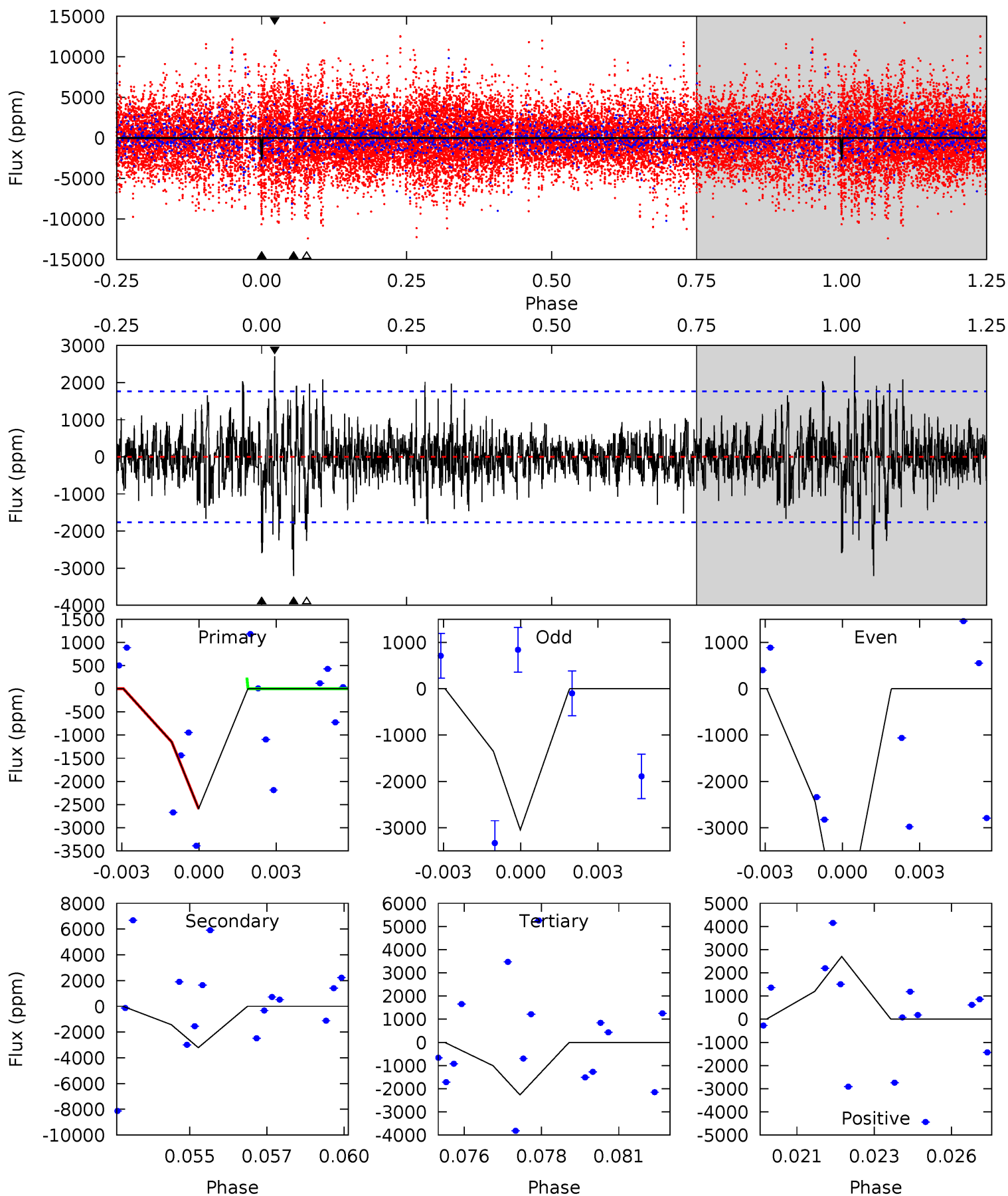
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	14.6	14.1	10.8	5.22	2.92	2.77	1.05	4.42	0.47	3.84	9.01	0.72	0.41	2.26



Alt Model-Shift Uniqueness Test

007902286-03, P = 602.885377 Days, E = 135.604192 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.75	9.62	6.78	8.10	5.28	3.01	1.70	0.97	-0.35	2.84	1.52	3.58	0.49	0.46	1.34



Stellar Parameters For KIC 007902286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6942^{+216}_{-401}	$4.283^{+0.062}_{-0.188}$	$0.210^{+0.150}_{-0.350}$	$1.458^{+0.409}_{-0.220}$	$1.488^{+0.166}_{-0.222}$	$0.675^{+0.258}_{-0.319}$
	+3%/-6%	+1%/-4%	+71%/-167%	+28%/-15%	+11%/-15%	+38%/-47%
Source	PHO1	KIC0	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 007902286-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1886 ± 129	$9.58^{+1.61}_{-1.33}$	414^{+32}_{-24}	5913^{+431}_{-369}	28318^{+8946}_{-7361}
Alt.	-3212 ± 334	$9.33^{+1.70}_{-1.32}$	416^{+28}_{-29}	6865^{+567}_{-496}	49887^{+18010}_{-13416}

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

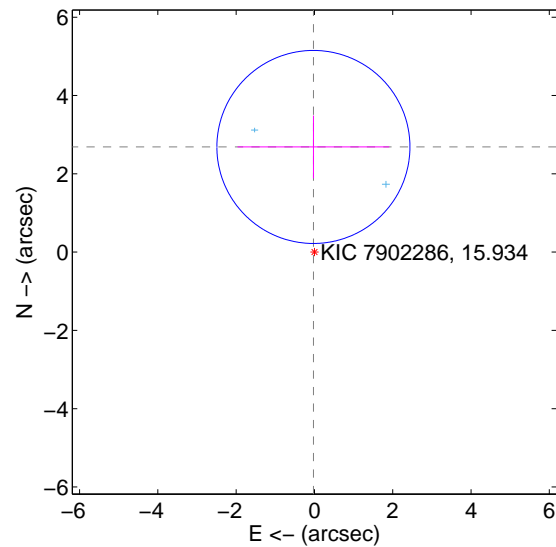
Supplemental centroid analysis for 007902286-03. Kepler magnitude: 15.93. Transit SNR 8.71

There are 2 quarters with good PRF difference image offsets

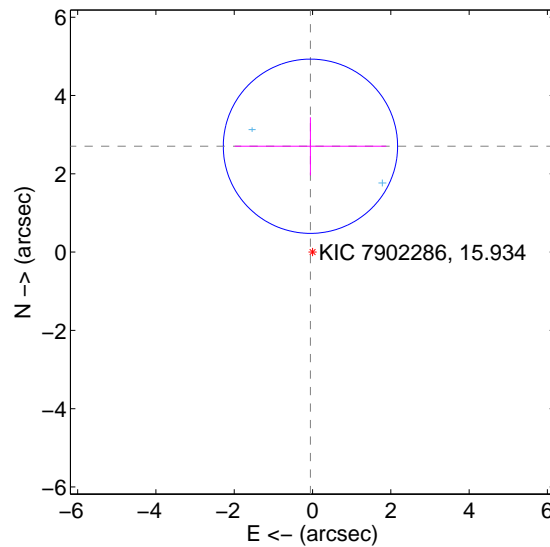
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.686 ± 0.822	3.27	0.026 ± 1.938	2.686 ± 0.803
PRF-fit source offset from KIC position	2.704 ± 0.742	3.65	0.053 ± 1.935	2.704 ± 0.741
photometric centroid source offset	0.46 ± 0.37	1.22	0.43 ± 0.39	0.16 ± 0.23

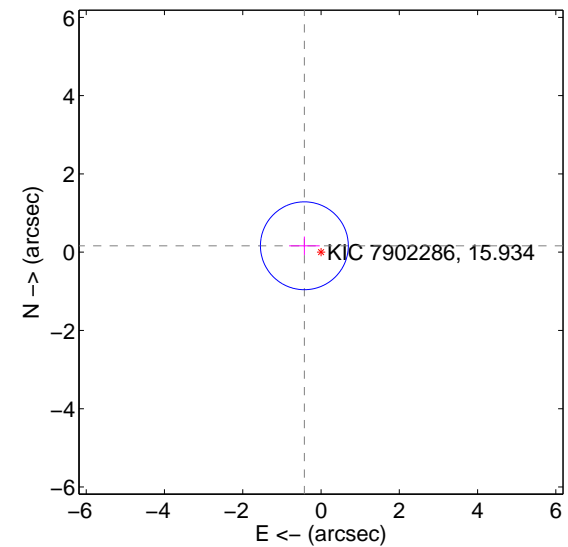
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

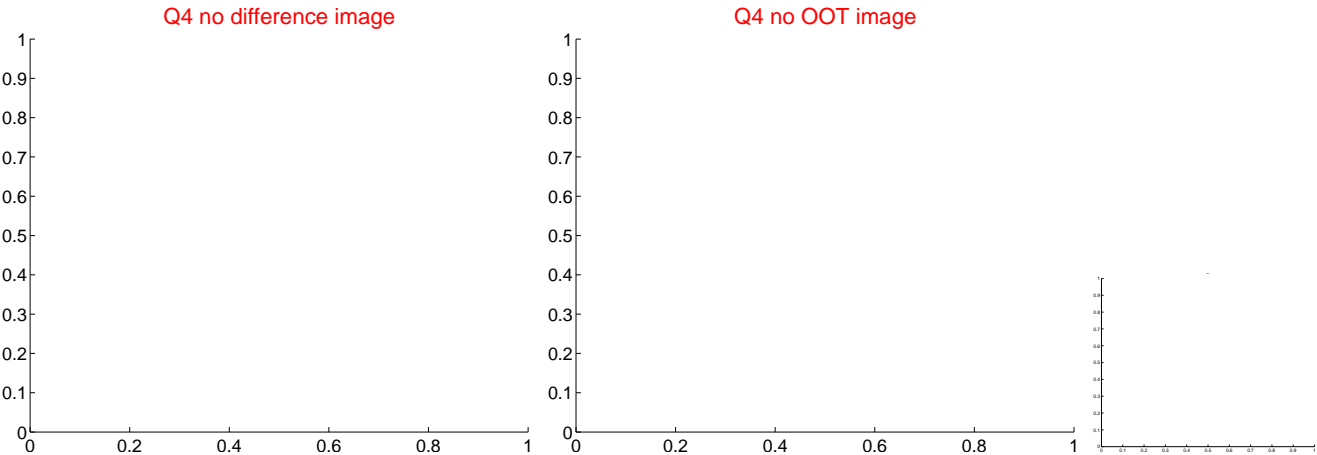
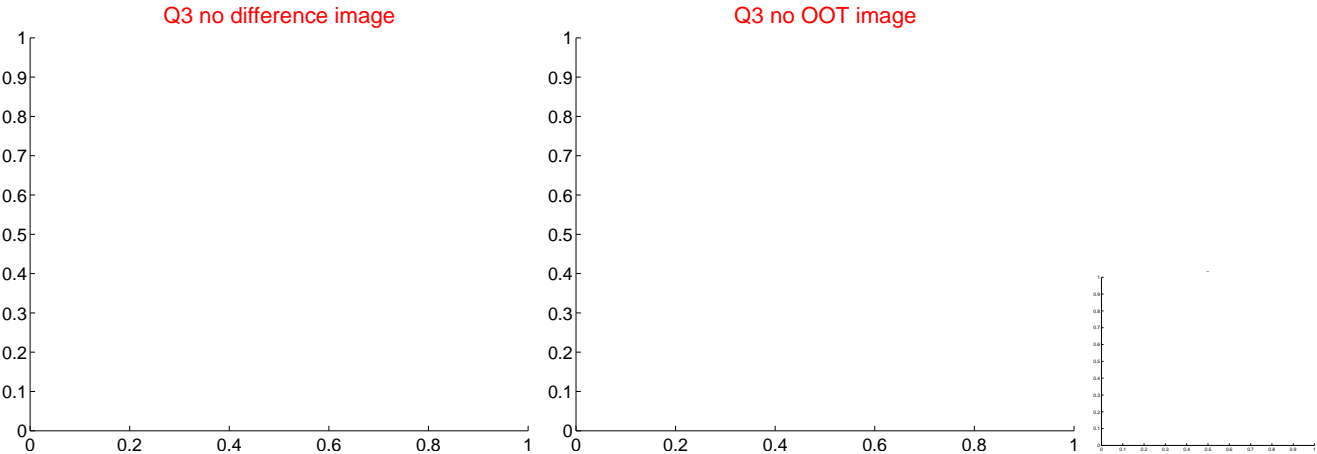
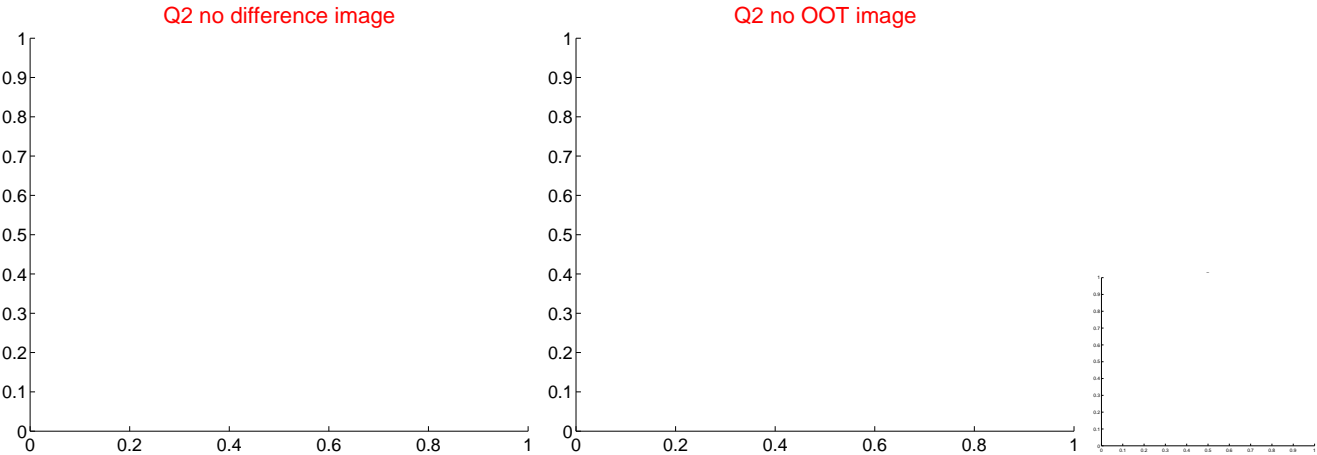
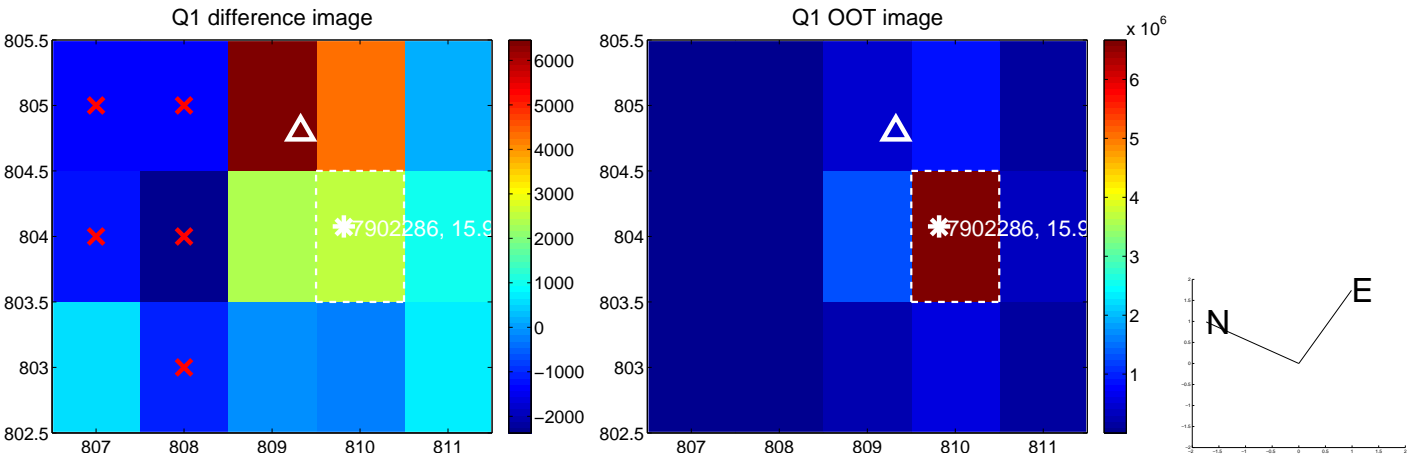


offset from photometric centroids



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.



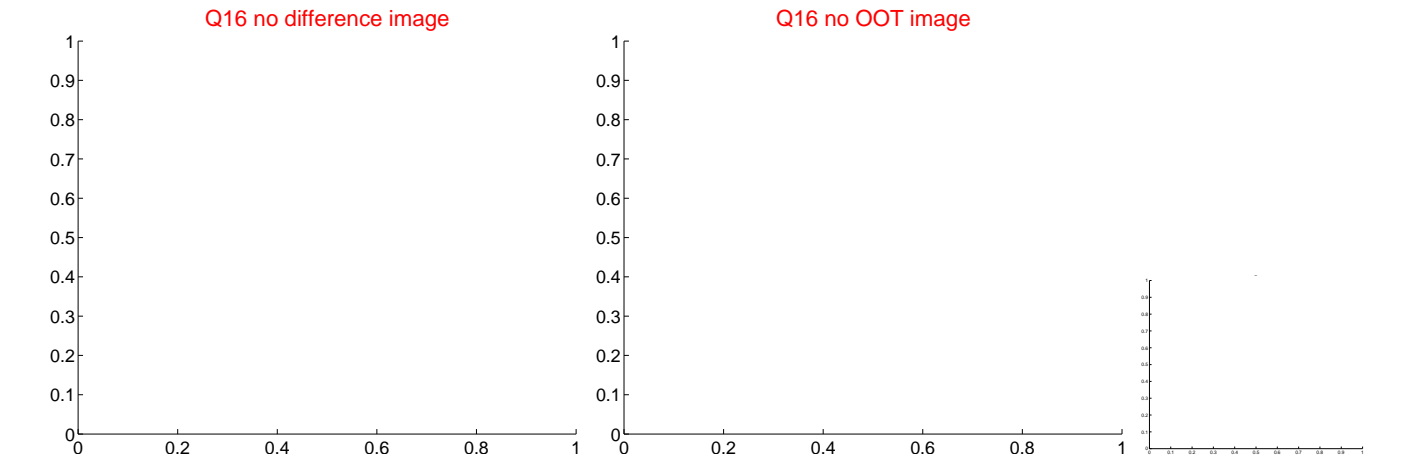
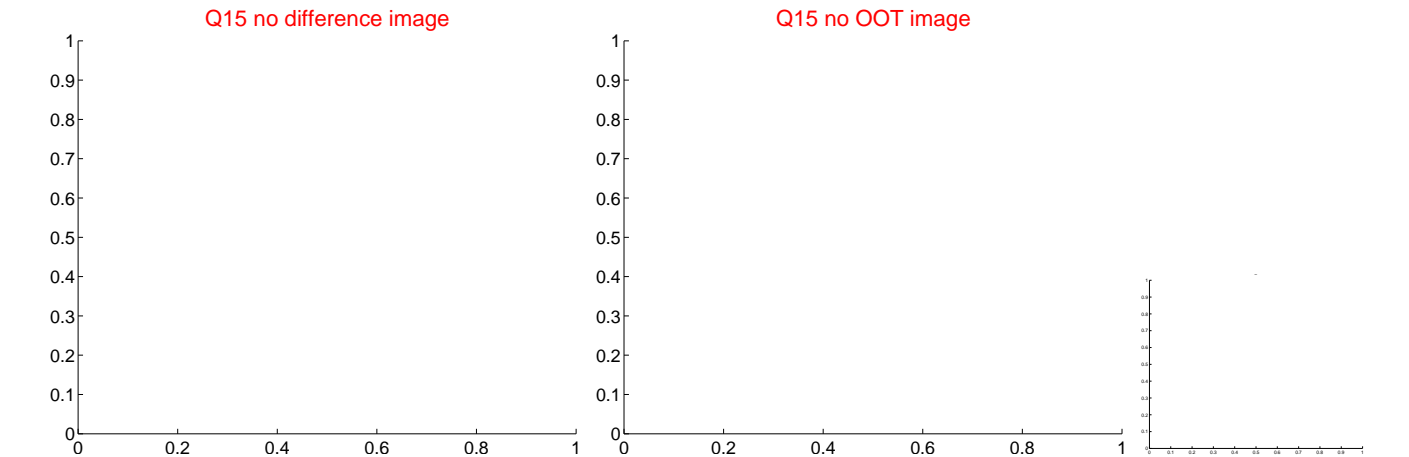
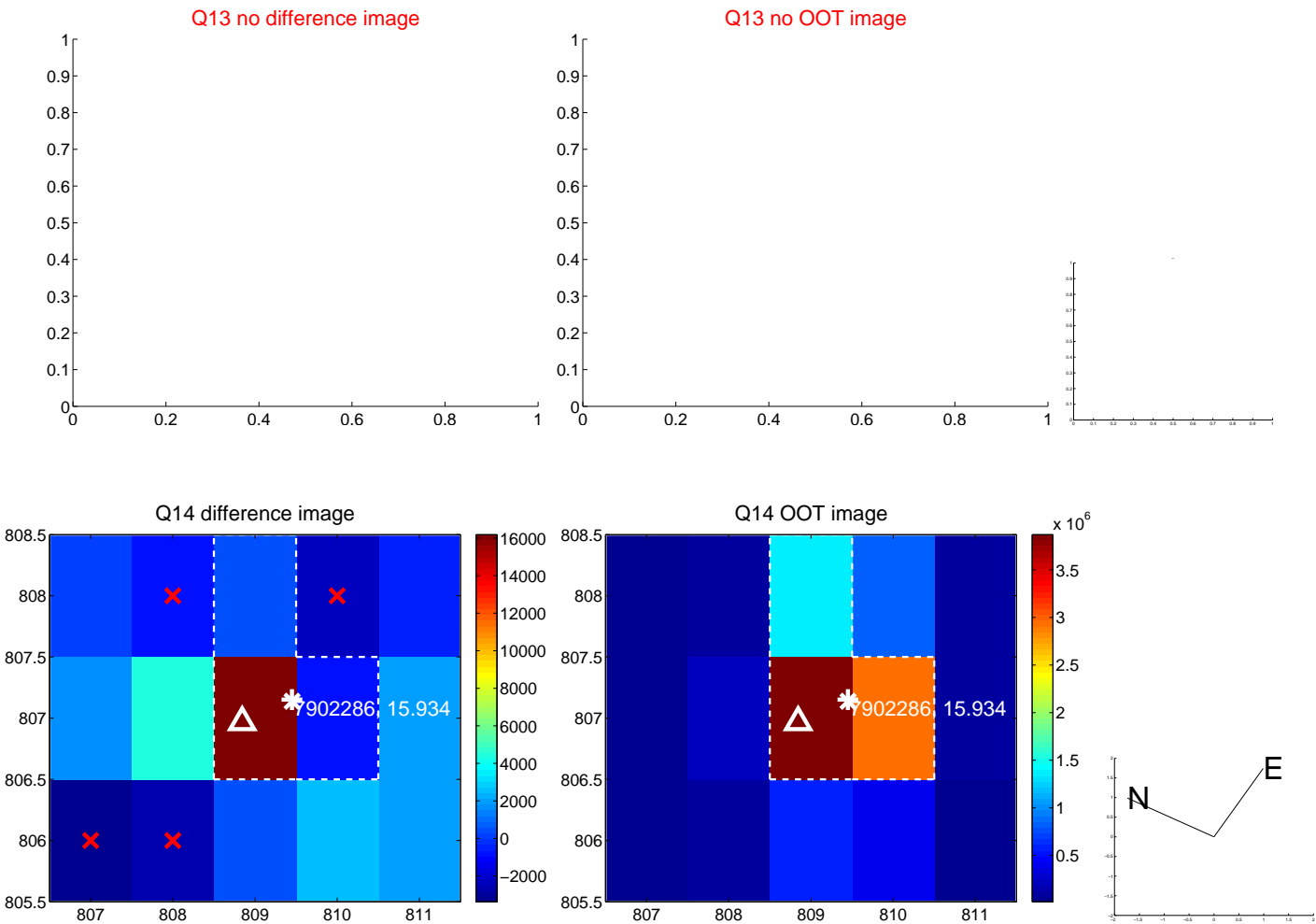
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



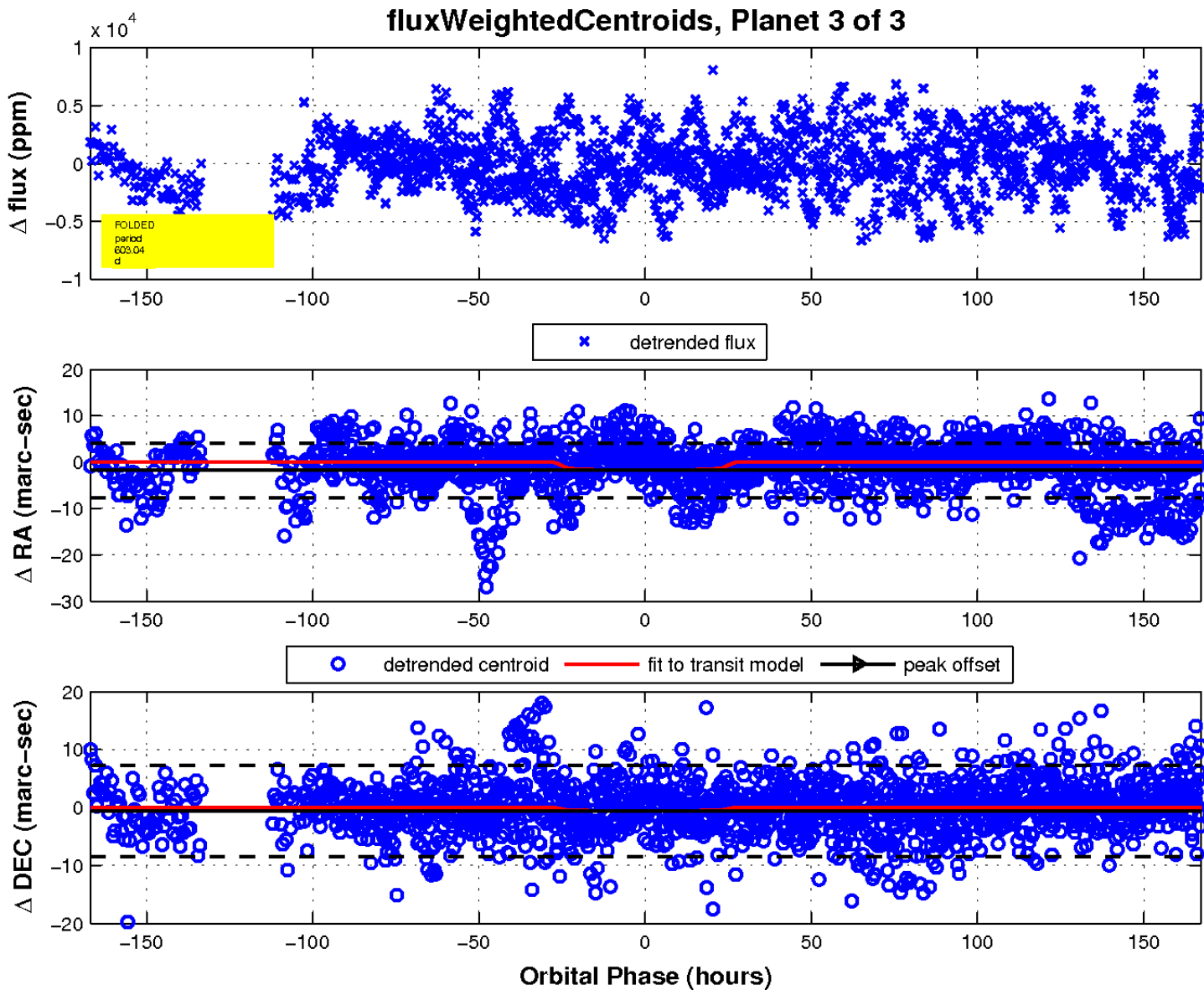
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q17 no difference image

Q17 no OOT image



UKIRT Image

Declination

